THE SATURDAY EVENING POST

An Illustrated Weekly Magazine
Founded by Benjamin Franklin

AUG. 29, 1908

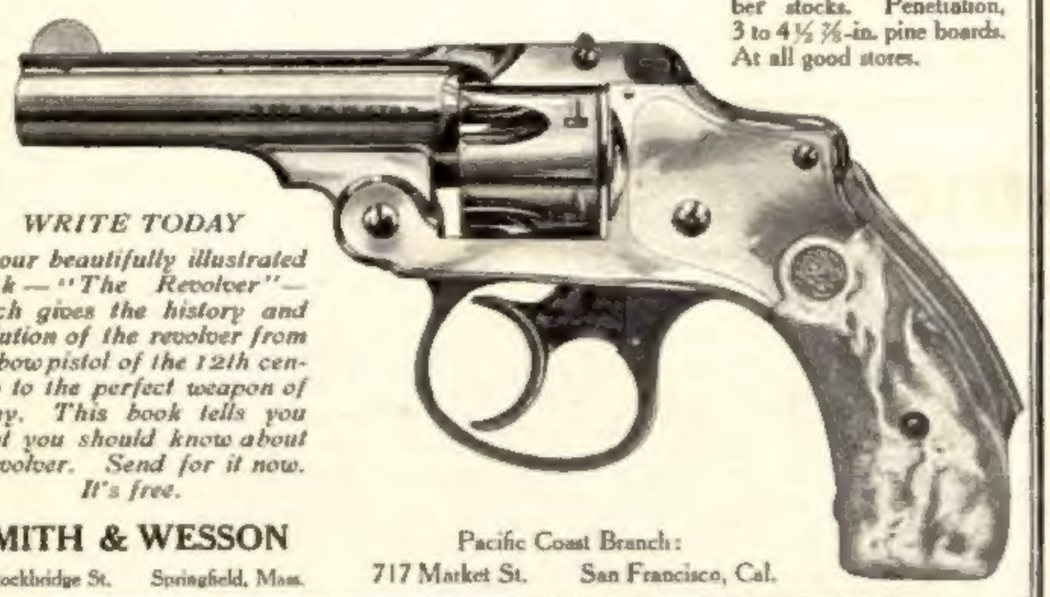
5cts. THE COPY

THE CURTIS PUBLISHING COMPANY, PHILADELPHIA

SMITH & WESSON

THE THOROUGHBRED OF THE REVOLVER WORLD

WHEN you need a revolver you need a *good* revolver. The SMITH & WESSON is the one revolver that *always* makes good, for the reason that it is *made* good—stock, cylinder, frame and barrel. The SMITH & WESSON is not a cheap weapon. It's a *sure* weapon.



HAMMERLESS SAFETY

.32 and .38 cal., 3¼, 3½, 4, 5 and 6-in. barrels, pearl or hard rubber stocks. Penetration, 3 to 4½ ⅞-in. pine boards. At all good stores.

WRITE TODAY

for our beautifully illustrated book — "The Revolver" — which gives the history and evolution of the revolver from the bow pistol of the 12th century to the perfect weapon of today. This book tells you what you should know about a revolver. Send for it now. It's free.

SMITH & WESSON

35 Stockbridge St. Springfield, Mass.

Pacific Coast Branch:
717 Market St. San Francisco, Cal.

It is better to furnish one room with genuine pieces than to have a house full of inartistic shams. The Karpen pure reproductions of the Colonial style have a lasting value, founded upon strength of construction, beauty and comfort. They suggest good taste, and show, always, honesty and beauty — honesty first, for there can be no beauty without truth.

Karpen Colonial Furniture follows faithfully the best in Colonial designs and detail and that sterling construction which has preserved Colonial antiques for more than 200 years.

Whether the style be Louis XIV, Louis XV, Louis XVI, L'Art Nouveau, Flemish, Colonial, Modern (embracing the art of all countries) Karpen furniture has authoritative quality.

Our big Free Book P. A. tells you of suites and individual pieces in all styles. From it you can make a selection suited to your needs. Write for it today — mention your dealer's name and get our special introductory price.

Don't overlook these facts: Karpen reproductions are exact — Karpen construction is lasting — Karpen alone puts a guarantee and trademark on upholstered goods — Karpen Sterling leather is the tough outside of the hide — Karpen fabrics are true to period and honest in material — Karpen springs are U. S. Gov't Standard.

Write for the big Free Book P. A., today. It will solve your problems, save you money and insure an artistic and satisfactory selection for your home. Your local dealer has Karpen Guaranteed Upholstered Furniture. He has our catalog of over 500 pieces. Ask for Karpen and look for the Karpen trademark — your guarantee.

S. Karpen & Bros. Karpen Building, 187-188 Michigan Ave., Chicago
Karpen Building, 155-157 W. 34th St., New York

Karpen Guaranteed Upholstered Furniture Chicago New York

College and Conservatory Scholarships

¶ Through THE SATURDAY EVENING POST plan more than a thousand young people have secured full or partial courses in the foremost colleges, conservatories, business colleges, correspondence schools, etc., throughout the country. These scholarships have been awarded without one cent of expense to the scholar. We paid all the bills and asked nothing in return except a little pleasant work in leisure hours.

¶ There is no element of competition in the plan. All have the same opportunity. We are willing to pay all the expenses of any young man or young woman desiring to enter any educational institution in the United States.

Write to us, telling us what you desire. We will send all the details, including a booklet in which some of our scholarship workers tell how they made successes. Address

The Educational Bureau, The Curtis Publishing Company, Philadelphia

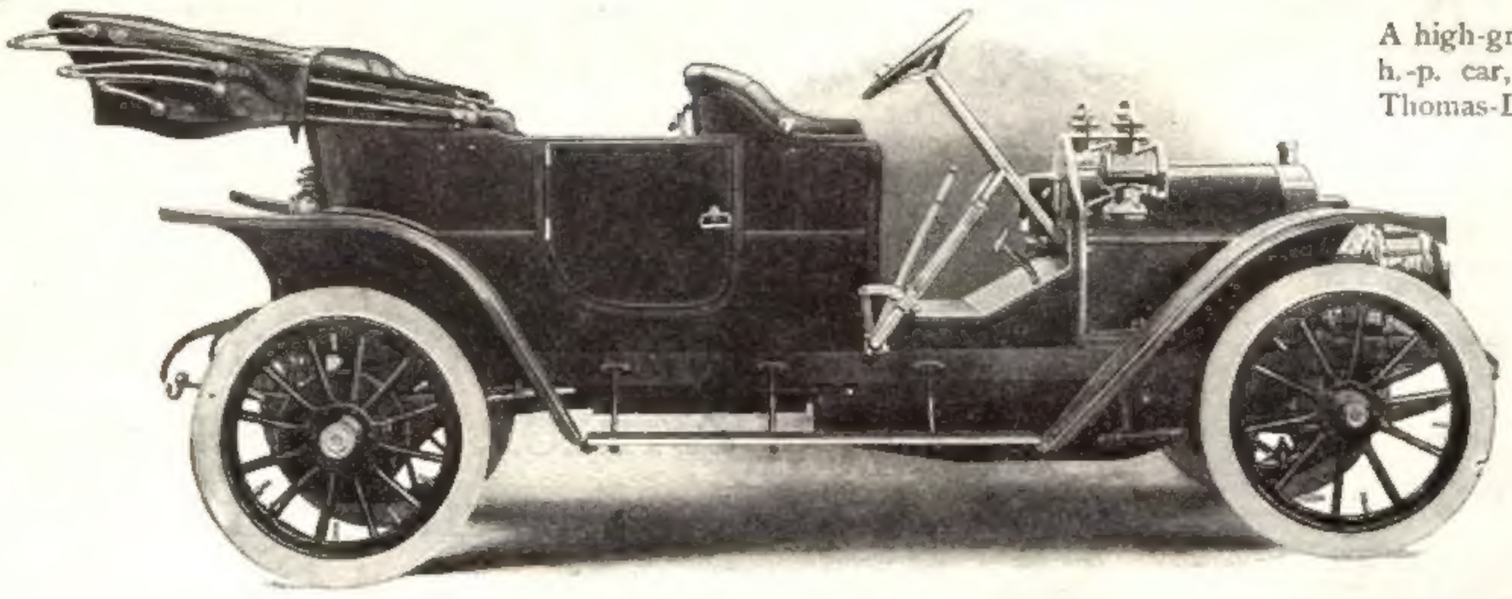
1909 Models Ready

Touring Cars
Tourabouts
Roadsters

Chalmers-Detroit "30"

"It's a Good Car"

A high-grade 4-cyl., 5-passenger, 24-30 h.-p. car, made by the makers of the Thomas-Detroit Forty.



Price $1,500

Our Profit Nine Per Cent

No doubt other 4-cylinder cars will be offered around this price. It remains for you to compare them.

Here is one so good that our profit—based on our full capacity of 2,500 cars—will be but nine per cent. Judge if anyone else gives so much for the money.

Here is one that has two years the start of all others. We have spent two years in perfecting it. It is not a makeshift—not an experiment.

This one has behind it all the reputation—all the skill and experience—we gained in making that incomparable car—the Thomas-Detroit Forty.

This one is designed by H. E. Coffin—for years the chief designer of the Thomas Companies—one of the leading automobile designers in America.

The car combines the best foreign features with the best American. For Mr. Coffin made two trips to Europe in working it out. Yet it copies nothing, either foreign or American. It simply adapts the best principles of the world's best engineers.

This car is not assembled from stock parts picked up haphazard. Every design of every part is made by our own engineers—the best engineers in the business. All the leading features are patented.

This car is luxurious—speedy and powerful—a car that you can take pride in. Low in price—economical in upkeep—yet with all the perfections of the costliest cars.

Compare it with rival cars—with any car costing up to $2,000. We are willing to abide by your judgment.

The first of these cars cost us $33,000. Then last winter, when things looked bluest, we contracted for $3,000,000 worth of materials—to save you 20 per cent.

That is how we made this car possible—by taking enormous risks. Yet we ask for our profit a paltry nine per cent.

Our 1909 cars are now being delivered.

Note These Facts, Too

The factory cost on this 4-cyl. engine is $261. Yet 4-cyl. automobile engines are sold as low as $75.

The transmission costs us $94. The axles—made of Nickel Steel—cost us $125.

The annular ball bearings used in this car cost us $103. We use as many as the Mercedes uses—the Hotchkiss or Renault.

Look at these costs again. Then think that they refer to features of a $1,500 car. We could save half or more on any of them were we trying to stint on this car.

We equip this car with Diamond ***Quick-Detachable*** tires. The usual clincher tires would cost 15 per cent less.

We authorized our factory to spend on the body finish 15 per cent more than their estimate. Our crank shaft is larger than on any American car under 60 h. p. Our brakes are enormously strong.

Twice the price can buy no better features. It can only buy more power.

The same economy applies to extras and to replacements. We furnish one of the best tops for $100. A Simms-Bosch Magneto for $125. Two gas lamps and a gas tank for $50.

Our repair parts are all sold on a reasonable margin—not at the usual profit of 200 to 300 per cent.

The four cylinders are cast together, as in the latest Fiat, Mors, Argyll and Hotchkiss. This gives lightness, compactness, perfect alignment, and a dozen other advantages. The only argument ever advanced against it is "cost of replacement." We answer this by furnishing a set of four cylinders for $35, less than most makers charge for two or even for one cylinder.

We use the Unit Power Plant, as in the latest Decauville, the new Hispano-Suiza, and the Motobloc. Motor, clutch and transmission form a single unit, so they cannot get out of line.

The wheel base is long—110 inches—insuring easy riding. The body is suspended between the axles, after the style of the Mercedes.

Valves like the new Napier. The ¾ elliptic springs like the Renault. Multiple disc clutch like the Isotta and Fiat.

The gas intake is water-jacketed to avoid the troubles caused by cold gasoline. Constant level splash lubrication—perfect dust protection.

Floating type rear axle, used heretofore only on the costliest cars. Selective sliding gear transmission—three speeds and reverse. Anti-backing device to protect you on hills. Provision for double ignition system.

So simple in control that a novice can master the car in ten minutes. A single pedal operates both clutch and brake.

It is easy to claim the best car at the price. But compare the facts—put all claims to proof. We have no competition to fear.

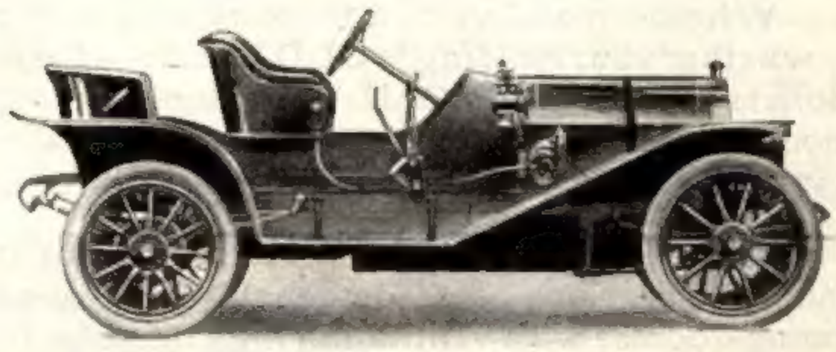
It is also easy to criticise features that others can't afford—devices that others can't copy. But let us answer those criticisms and you will realize how weak and how futile they are.

At this writing it looks as if the demand for this car would be twice our supply. Orders are filled in turn, or you can reserve a car for future delivery.

Please act at once—send for our catalog now. For, when our output is taken, you can find no car within $500 of our price to compare with the Chalmers-Detroit "30." Don't wait and regret.

Chalmers-Detroit Forty

Formerly the Thomas-Detroit Forty



Chalmers-Detroit Forty Roadster, $2,750

The best guarantee that our $1,500 car has is the fact that it is made by the makers of the Chalmers-Detroit Forty.

This car is incomparable. We have never been able to make enough of them to supply the demand. Our output every year is sold before June, and this year (1908) we could have sold 200 more.

The 1909 models of the Forty—now ready—are the same as the 1908 models, save for the brakes and the springs. The brakes are heavier, the springs more easy riding. We know no way to improve it. The records it made during the past two seasons prove it the best medium-priced car that is made. Its users seek for nothing better.

We advertise our Forty in but a limited way. Our present users, through their endorsements, more than sell our output. The only way to get one is to order early.

The 1909 models of the Chalmers-Detroit Forty are shown in our catalog. Made in two styles—Touring Car and Runabout. Price $2,750.

CHALMERS-DETROIT MOTOR CO.,
DETROIT, MICH.

Please send the catalog to

Name _____

Address _____

The Saturday Evening Post.

This change in name involves no change in ownership, personnel or management. It is simply made to avoid the confusion of two Thomas concerns operating on separate lines.

Chalmers-Detroit Motor Co., Detroit, Mich.

HUGH CHALMERS, President
Successors to E. R. Thomas-Detroit Co.

A weather forecast

The first cool evenings forecast the hard, dull bitterness of coming Winter. You can regulate your own weather in your own home—make June of January. Every weather change, even in this capricious climate, is overcome instantly, automatically by the regulating devices of

AMERICAN & IDEAL
RADIATORS BOILERS

for Hot-Water and Low-Pressure Steam heating. This will interest particularly those who do not like to rise in a cold room—and those who enjoy a comfortably warmed bathroom—and those who like to begin the day right in a cozily warmed breakfast-room—and those who know what it means to have warm corners and warm floors for children's play—and those who know how much cold halls cost them each winter in discomfort and doctors' bills—and everybody else who lives in a climate like ours, where twelve hours often makes the difference between Florida and Greenland.

Rococo Dining-Room Pattern of AMERICAN Radiators

Whether you live in a three-room flat or cottage, or a ninety-room mansion—whether your building is OLD or new—FARM or town—our outfits of IDEAL Boilers and AMERICAN Radiators are so simple to put in and to run, so moderate in price, so clean and sanitary that you cannot longer afford to put up with the old-fashioned wasteful, unhealthful heating.

ADVANTAGE 14:—AMERICAN Radiators are made in 31,350 sizes and shapes for various uses; detachable legs for carpeted floors; warming ovens for dining-rooms; with ventilating attachments; to fit under low windows, and under bay-window seats; narrow models for halls and bathrooms; giants for storm vestibule or outer halls; in fact, just the radiator for each particular place that needs one.

Our book tells all about them (and all about the IDEAL Boilers). You will need it to choose the models from. Mailed free. Write *now*, before winter—not *then*, when it's here. Offices and warehouses in all large cities.

DEPT. 28 **AMERICAN RADIATOR COMPANY** CHICAGO

New York, Boston, Philadelphia — Buffalo, Pittsburg, Cincinnati — Atlanta, Detroit, Cleveland — Chicago, Milwaukee, Indianapolis — St. Louis, Memphis, Minneapolis — Omaha, Kansas City, Denver — San Francisco, Seattle, Brantford, Ont. — London, Paris, Berlin

THE SATURDAY EVENING POST

Copyright, 1908, by THE CURTIS PUBLISHING COMPANY in the United States and Great Britain.

Founded A° D° 1728 *by* Benj. Franklin

Entered at the Philadelphia Post-Office as Second-Class Matter.

Published Weekly at 425 Arch Street by THE CURTIS PUBLISHING COMPANY

London: Hastings House, 10, Norfolk Street, Strand, W.C.

Volume 181 — PHILADELPHIA, AUGUST 29, 1908 — Number 9

TOURISTS AND TOURINES

Some High Lights on the Big Show Out West

By Samuel G. Blythe

ILLUSTRATED BY M. L. BLUMENTHAL

"WISH consommé?"

The dining-car waiter leaned over the chair of the Pudgy Man and inquired in a far-away voice.

"What's that?" flared the Pudgy Man.

"Wish consommé?"

"No; I ain't a Wisconsin man, and I never was in Wisconsin in my life, and it's none of your business anyhow."

The Pudgy Man was fierce about it.

"George—George," exclaimed the Lady in Green, "he means soup."

"Well," shouted the Pudgy Man, "why don't he say it in plain, ordinary English then, so's people can understand?"

And then all was silence, save for the rattle of the train over the rails and the hoarse cries of the waiters in the kitchen as they ordered what they thought the people in the car thought they wanted, based primarily, of course, on what the waiters knew they could get.

Geyser Bob

You see we were on our way to the Yellowstone, car after car full of tourists, tourines and tourettes—thus classified by the Pullman Man, and meaning men, women and children—and falling easily into the further analysis of those who had been there and those who hadn't. It had been a happy, happy trip. To be sure, there was a trifling delay of eight hours at Buffalo, North Dakota—ever stopped at Buffalo, North Dakota?—caused by a washout, and there was but one dining-car to six Pullmans, wherefore one hundred and fifty people tried to jam all at the same time into a dining-car that could seat thirty; and to add to the pleasure of the occasion the railroad had resurrected some sleeping-cars, lighted—and heated, too—by kerosene lamps, no doubt to accustom us to the methods of illumination in the primeval forest where we were going—resurrected the original cars made by Mr. Pullman, which proved to us that Pullman cars are practically indestructible, and gave a fine sense of security in case of accident, to say nothing of allowing us opportunities for comparison with electric-lighted trains, of which some of us had vaguely heard. Still, the obliging porters had pointed out that these cars were fitted for electricity, too. The only things they lacked were the bulbs and the electricity—mere trifles—and that helped some. Then, when we were joyously eating olives bought at the general store in Buffalo—olives are very filling—and listening to the local banker tell us how much the land was worth, and watching some hoboes cook some soup by the side of the track, the water gave out; but it wasn't so very dusty, and everybody would have a chance to scrub at Mandan, only a few hundred miles away.

"Do Not Feed or Annoy the Geysers"

But, as we were approaching Gardiner—we were nine hours late then—one of the most persistent of those who had been there before was quizzing the conductor about the Park. He had been telling us that out there, right in the Park, they had geysers—yes, sir—geysers that spouted water up in the air.

"What for?" asked the Man from Sweden.

"Why," replied the Man Who Had Been There, "convulsion of Nature, you know. Something happens below and something else happens on top, and pretty soon up she comes. Yes, sir; comes right up a-whooping."

"But why?" asked the Man from Sweden.

"Convulsion of Nature, I just told you," replied the Man Who Had Been There.

"Seems hard to make a foreigner understand anything."

The Man from Sweden drew a long breath and prepared to go into orderly action. "Very well," he began ponderously, but just then the conductor came along.

Thinking to divert the Swede from his evident determination to discuss the matter, the Man Who Had Been There turned pleasantly to the conductor and asked: "Any new geysers broke out up in the Park since I was there last year?"

"Sure," asserted the conductor. "New one broke out last night. Throws up hot ice."

Lo!

The Swede was diverted. "Hot ice?" he repeated, rubbing his chin. "Now, that is a curious phenomenon. I suppose it is not good for economic use?"

"Certainly," answered the conductor. "They use it to put in hot Scotches on the cold nights."

That held everybody until we reached Gardiner and had piled on those six-horse coaches that the wonderful, alert, clean-cut drivers tool up the winding road to the Mammoth Hot Springs Hotel. I am quite sure they could drive eight or ten horses just as well as six. Back East a man who can drive four horses without piling them in the ditch gets paragraphs in the papers, or when he goes to London is cabled about; but out in the Yellowstone a driver—and President Child, of the Yellowstone Park Association, has two hundred of them—who couldn't drive at least four horses with his eyes shut and one hand tied behind his back couldn't hold a job. It is as safe as sitting in a parlor, riding on those coaches.

Along the Gardiner River the driver pointed out the Eagle's Nest.

"What's that?" queried a tourine.

"The Eagle's Nest."

"Looks like a bundle of sticks."

"It is."

"I thought you said it was an eagle's nest," she sniffed.

"It is."

"Pshaw!" she sniffed again; "the minister's wife from home was out here last year, and she told me never to believe a single thing those drivers tell."

The driver dropped the snapper of his whip gently on the flank of one of the leaders.

"Driver," inquired the same tourine, shrilly, "ain't that water running up hill?"

"No, madam."

"It is, too."

"No, madam."

"Well, I don't believe you. It is, too, running uphill. I guess I can see with my own eyes."

Big mountains came into view. Four tourists put their heads together and discussed a proposed change in the ritual of the Odd Fellows. Three tourines wondered, loudly, if there was going to be any dust that would ruin their clothes. A seat full of young men thought the Pirates would sure win the pennant in the National League.

"Humph!" said the driver. Then, making another effort, he said: "That's Bunsen Peak, named for Bunsen the chemist, who invented the Bunsen burner."

"What's that?" inquired a tourine. "One of them hot springs?"

And the driver gave it up.

We swung around the circle in front of the hotel, and discovered that the anxiety of the railroad to get us used to kerosene so we wouldn't be disappointed at the hotel was a bit far-fetched, for there was an orchestra playing, the place sparkled with electric lights, there were great verandas, and fine rooms, and good food. We didn't need that kerosene object-lesson.

"Formation wagon is about to leave," announced the head porter.

"Hurry up, Mother," said the Lady in the Linen Duster, "we want to go on this. I just love them formations. What are they, anyhow? Hurry, Mother!"

Mother hurried. So did the Man from Sweden and some more of us, and the wagon jogged off toward the hot springs.

"Isn't it grand?" said the Lady in the Linen Duster. "I never saw anything like it."

"I ain't seen anything yet," complained Mother.

"Why, Mother; just use your eyes. What's the use of coming on a trip like this if you don't use your eyes? Ain't them splendid horses. See that hot spring. And the harness, ain't it grand? I think I'll dye my green dress this year. Ain't that just too grand? Look there, Mother; see that squirrel. Ain't it grand?—no, I mean cute. Just like the squirrels at home. Look at them horses. And the harness. I never saw anything like it. Ain't it grand? Look, Mother! there's a chipmunk. Ain't it too cute? It's just too cute for anything. And, look, Mother! there's another squirrel. And ain't them horses grand? I do love black horses. And that harness! My! my! it must cost a lot of money. Look, Mother! that's a hot spring."

"Where?" asked Mother anxiously.

"Why, right over there. Can't you see it? Look, Mother! there's another chipmunk. Them hot springs is hot at all seasons of the year. The outside don't seem to make any impression on the inside. Ain't it perfectly grand?"

"I ain't seen nothin' yet but squirrels," wailed Mother.

"Why, Mother; you just use your eyes. Hurry, now, for we ain't got long to stay. Look! that's Jupiter Terrace. Ain't it grand? It's just grand. Jupiter Terrace, you know, named for—oh—for somebody or other that discovered it, I suppose. And them hot springs coming up all around. Perfectly hot. Isn't it, driver?"

"Yes'm," said the driver.

"Hot!" wailed Mother. "It ain't no hotter than water in a wash boiler."

"Why, Mother; w-h-y, Mother; the very idea of you saying such a thing. It's just grand. Comes right up out of the ground, you know. Mother, you reely should see these things. They're grand. And them horses! And that harness! I wonder if I can get my hair did up here. Ain't it perfectly grand?"

"I want my supper," quavered Mother.

"Why, Mother; thinking of supper out here among these sublime works of Nature. Perfectly sublime, I call them. Grand, too. See that cute little spring, all blue and bubbly. Grand, ain't it?"

"What makes it blue?" asked Mother, with a sudden access of interest.

"Why, it's blue because it's blue; you know, just blue. That's its color. Blue. Grand, too."

"But what makes it blue?" insisted Mother.

"Madam," interjected one of those who had been there before, "it is blue because the waters hold in deposit certain minerals that impart the ultramarine tinge to the water."

"I never saw no blue minerals," protested Mother. "Unless it was indigo for bluin'. 'Tain't indigo, is it?" she asked anxiously.

"Tell me, driver, to what use are these springs put?" boomed the Man from Sweden.

"No use," said the driver. "They are just natural curiosities."

"Great waste; great waste," commented the Man from Sweden. "Has no step been taken to use them?"

"Wal," said the driver, "there has been some talk of pipin' them around the Park and heatin' it in winter, but it ain't come to nothin' yit."

"They should not be wasted," announced the Man from Sweden most importantly.

"Gee!" exploded the Man from New York, who hadn't said a word since we left the hotel, "I should think they'd run a trolley line through here."

All in all, the Yellowstone National Park is the biggest show that eminent show-woman, Mother Nature, has provided for the people of this country. To be sure, she puts up a very creditable continuous performance at Niagara and another at the Grand Cañon of the Colorado, but these are vast and specialized entertainments. In the Park she has a show that ranges all the way from fire to snow, with cañons, lakes, forests, geysers, mountains and everything else that appears on any of her bills elsewhere. If you are bored of geysers you can turn to hot springs. If you are tired of hot springs you can gaze at mountains. If mountains weary you you have lakes, rivers, cascades, a cañon that is a bijou reproduction of the Grand, wild animals by the hundred, untouched forests, all sorts of fantastic evidences of decaying volcanic action, all sorts of geological freaks, and with it all good hotels, smooth roads, superb vehicles and as much comfort as you will find in driving through a city park.

Congress set aside this marvelous region "for the benefit and enjoyment of the people," and the men who run the conveniences in the Park have so ably supplemented Mother Nature that there is no show to compare with it. The Government built and maintains the roads. United States soldiers patrol the Park and preserve order. It is a tripartite combination of Nature, the United States and the Yellowstone Park Association, and the partnership works out exceedingly well.

"It's a Wonder They Don't Build a Trolley Road Through Here"

Just as with every other sort of show, the show folks in the Park have a language of their own to describe themselves, and this is the vocabulary: Heavers, Savages, Swatties, Dudes, Sagebrushers, Freighters.

A Heaver is a young woman waitress at a hotel or lunch station, a Savage is a driver, a Swattie is a soldier, a Dude is any person who travels through the Park in a stage or other hired conveyance, a Sagebrusher is a person who takes in his own camping outfit, and a Freighter is a driver who drives a freight wagon, as distinguished from a stage driver.

Naturally, the heavers come first on the list. Most of them are professional waitresses, who go South in the winter to work in the big hotels in Florida, California and the tropics, and come to the Park in the summer. They are a subject of great concern to the savages and the swatties, for there is no other female companionship in the Park for these several hundred men.

"Now, say," said a savage to a forlorn freighter, "if you take my advice you will keep away from them heavers. Them heavers will sting folks like us every time. Them heavers is fly. They travel all over the country, and they ain't got nothin' easier to do than to sting people like us. We are children with them heavers. Keep away, is my advice; an' I know what I'm talkin' about, havin' druv up here for seven years. Them heavers will sting you, I say."

"I reckon you're right," commented the forlorn freighter. "One stung me good and plenty. You know that blond that heaves at the second table. Well, she come honeyin' up to me an' allows she hears I had a good saddle hoss. Tells me she is plumb dotty 'bout ridin', but ain't had no chance since her father's bank failed back East, an' she was compelled to leave her an-cees-trul estates—them is the words she used—an' go out into the crool world. Would I mind lettin' her ride my hoss a spell?

"Wal, I'm pertick'ler 'bout that there hoss, but she come honeyin' 'round, an' I ups and lets her take him. I let that there blond heaver take my hoss, I did."

The forlorn freighter relapsed into gloomy silence.

"Did she sting you?" asked the savage.

"Sting me? She stung me proper. She rid that there hoss four times between here an' Norris Basin an' left him turned loose in the woods, plumb lame, an' it took me two days to find him. An' when I ast her 'bout it she ups an' tosses her head an' says to me that the hoss wa'n't no good, nohow—not like them that she used to have on her an-cees-trul estates; an' I'll be durned if she'd go to the swatties' dance with me, but went with one of them blame Monida savages."

"Driver," interrupted the Man from Sweden, who came along at this time, "I understand there are bears in this Park. Is that true?"

"Yes, sir."

"Are they dangerous?"

"No, sir; you couldn't call 'em dangerous. They is mostly tame bears. Curious, too, how tame they are. Down at Norris the boys has nailed a piece of lookin'-glass on a tree out by the dump where the bears come, to slick up with, you know. Other day I was out there watchin' the bears, an' I see a little black bear climb up that tree and look at himself in the glass. Then he kind of brushed his hair on the top of his head a bit and clumb down an' begins eatin' agin. He had seen white folks fixin' up before dinner, you know, an' thought he would, too.

"But, speakin' about the bears bein' dangerous, they ain't dangerous unless they think you've got some sugar in your clothes. Feller came out here a spell ago that had some sweet chocolate in his pocket. Bear smelled it and come amblin' up. The feller run. Then the bear run, too. Feller clumb a tree. Bear after him. Soon's the feller got so high he couldn't go no further he begins screamin' fit to kill. He was too high to jump, for he was in the top of the tree then. Bear clumb up, sniffed around, put his paw in the feller's pocket, took out the chocolate, clumb down, and when it got on the ground made a kind of

Something New and Awe-Inspiring Every Hour

bow to the feller an' went off to the woods. That's what I would call a sort of tame bear."

"Had a tamer one than that out to the Cañon," said Colonel Tinny. "This bear was a big silvertip and he got to coming around the drivers' quarters. One night when we was out to a dance we came back and found that bear in one of the beds. He had crawled right in under the sheets. After that he came to bed regular every night along after he had finished eating up on the dump, and we had him for a regular companion all summer. Pretty good sort of a companion, too, only he would get kind of peevish if the clothes wasn't fresh every night."

"Amazing!" commented the Man from Sweden; "but, tell me, cannot these bears be utilized in some way? Is there no economic principle to which they might be applied? It seems a shame to see all these bears going to waste this way."

"There's been some talk of hitchin' up a team of big grizzlies an' usin' them to spell the horses on the grade between the Thumb and the Lake Hotel, but it won't work out. You see, grizzly bears are so blamed tender-mouthed every time you put a bit on them they run away."

"Gee!" put in the Man from New York, who was standing by; "I should think they would build a trolley road through here."

"It is amazin' how tame them animals get," said Geyser Bob, one of the yellow-coach savages. "Now, you take that old antelope down at Mammoth Hot Springs. It has been around there for a year or two. Every afternoon, when the sun gets hot, it goes over to the porch of Major Allen, at the Army post, and gets in the hammock and takes a nap."

"I don't believe it," stormed the Lady in the Khaki Suit. "An antelope couldn't get in a hammock. Its feet would go through the meshes."

"But, madam," continued Geyser Bob imperturbably, "this is one of them canvas hammocks, you see."

"Wouldn't it be grand to see an antelope in a hammock, Mother?" asked the Lady in the Linen Duster. "Perfectly grand. Oh, there's a geyser. See, Mother, there's a geyser. Ain't it grand?"

"I don't see no geyser," quavered Mother.

"Why, Mother; there it is, right before your eyes. That spouting thing, you know. It's grand."

"What makes it spout?" asked Mother pugnaciously. "I'm tired of seein' these things without knowin' about them. What makes it spout, I say?"

"Why, Mother, how you act. It spouts because it spouts, goes up; you know, spouts; that's all. It's grand."

"Madam," put in the Man Who Had Been There Before, "if you will allow me I will explain. You see, it's this way: When a certain amount of superheated water becomes combined with a certain amount of superheated steam and the superheat is heated to a degree, when the heat is hot, as I may say, the water runs in and then it is heated too, and at that moment it is ejected into the air. I trust I am clear."

"But what heats it?" asked Mother.

"Why, it is heated by the heat, the heat, you know; the heat that is heated in the heated interior of the earth."

"In hell?" asked Mother in an awed voice.

"Why, no, that couldn't be," answered the Man Who Had Been There Before, "because, you see, there is no such place as hell ——"

"Is, too," protested Mother. "Is, too, I tell you. There is, too. Don't you come around here, young man, and try to work any of your heathenish ideas on me. There is, too. Is, too."

"But, madam, I am trying to explain. You see, every geyser is a hole in the ground ——"

"Huh!" commented Mother scornfully. "Everybody can see that."

"Every geyser is a hole in the ground. When the water comes in and is heated it is heated in the hole. Having been heated in the hole, the temperature of the water will rise until it reaches a temperature corresponding to its depth. That is, if it is deep it will rise, and if it rises it will be deep. Now, having been heated at its depths, it will rise until it allows room below for more water to come in and be heated, and that rises to an exact ratio with its depth. More water comes in and is heated. Pretty soon it is so hot the rocks can contain themselves no longer and the water is ejected, that is to say, expelled, at the exact moment when the water reaches a boiling point corresponding to its depth ——"

"What heats it, I say?" demanded Mother.

"Of course, madam, if you will not listen to an explanation ——"

"Look here, sir," exploded the Lady in the Linen Duster, "don't you give my mother no sass. You haven't explained nothin'."

"Gee!" broke in the Man from New York; "I wonder why they don't build a trolley road through here."

"Strange about some people," muttered the Man Who Had Been There Before; "they can't understand nothing."

"But tell me," pacified the Man from Sweden, "do you not think it amazing that all this heat and steam should be going to waste with no effort to utilize it for economic purposes?"

"Wal, they hain't yet," answered Geyser Bob; "but they've got a scheme started to catch this water and bottle it and send it to Europe."

"What would they do with it there?" asked the Man from Sweden, vastly interested.

"Oh, send it back to this country as genyouine medical spring water from the other side and sell it to us."

"But the heat and the steam—this is a great economic waste," persisted the Man from Sweden. "Take Old Faithful, there. Once every hour it belches up enough heat and steam to run a factory."

(Continued on Page 24)

THE HERO OF AN HOUR

The Boy Who Wanted a Nickname

"I Don't Know—I'm Full of Gravel!"

By OWEN JOHNSON

ILLUSTRATED BY MAY WILSON PRESTON

GEORGE BARKER SMITH was one of the four-hundred-odd boys whose names figure in the school catalogue at the commencement of each year. He had passed from the shell into the first form, from the first form into the second, where he had remained an extra year, during the elongating, dormant period of his growth, and an extra year in the third form, during the dormant, elongating period, then in the seventh year of his career he finally achieved the fourth form and entered the Upper House.

During this generous stay he had done nothing to distinguish himself from his neighbor. He had never accomplished anything heroic, attempted anything daring, or even done anything ridiculous. After seven years his record was so blank that even the fertile imaginations of Hickey and Macnooder could find nothing on which to hang a nickname. Besides, it is doubtful if they ever stopped to think of George Barker Smith. He filled in, he was the average—a part of the great background of school life, which made up the second teams in athletic contests and substituted occasionally on the banjo and mandolin clubs, after borrowing a dress suit across the hall.

He ran in debt at the jigger shop, like every one else, or he might have been called Miser. He flunked in Greek and mathematics sufficiently to escape the epithet of Poler. He had occasionally been read out at roll-call for absence from bath, thus invalidating the right to Soapsuds or Wash.

Sometimes, when his neighbors dropped in on him in quest of stamps or a collar or a jersey, they called him affectionately Smithy, old Sockarooster. But he was not deceived, and loaned from his wardrobe with a full comprehension of the value of endearing terms. Smithy! After seven years he was just Smithy—his whole story was there.

And in the secret places of his heart, which no boy reveals, George Barker Smith grieved. Covertly he felt his obscureness and rebelled. After seven years' afflictions he would pass from Lawrenceville and be forgotten. And all for the lack of a nickname! If Nature had only formed him so that he might have aspired to the appellation of the Triumphant Egghead. The Triumphant Egghead—that was a name to be proud of! Who could ever forget that? There was fame secure and imperishable; neither years nor distance could dim the memory!

No, Nature had not been considerate of him. His nose was just a nose, not a Beekstein; his ears were ordinary ears, not Flop ears; his teeth were regular and all present. No one would ever call him Walrus or Tuskarora Smith, which sounds so well. He was not tall enough to be called Ladders or Beanpole; he was not small enough for Runt, Tiny, Wee-wee or The Man. He was just average size, average weight, which barred a whole category, such as Skinny, Puff-Ball, Shanks, Slab-Sides, Jumbo, Flea, Bigboy and Razors.

To pass into the world and be forgotten! To fade from the memory of his classmates or to linger indistinctly as one of the Smiths between Charles D. and George R.! And all for the lack of a nickname! George Barker Smith, brooding thereon, envied the Gutter Pup, who likewise rejoiced in the appellation of Razzledazzle and the Rocky Mountains Gazelle; he envied the Waladoo Bird and the Morning-Glory; he envied Two-inches Brown, whose indiscreet remark that he needed but that to make the 'varsity nine had at least enrolled his name on the list of celebrities; but most of all he envied the Triumphant Egghead. With that glorious title as model, he sought in himself for something which might reclaim him—and found nothing. From Barker Smith might be made Doggie or Bow-wow Smith, but even that lacked naturalness and application. No, there was no turning his destiny; Smithy it was decreed and Smithy it would remain.

It was not fame Smith sought. His spirit was not of the sort that drags angels down. Naturally there had been periods in his youth when he had dreamed of reaching the Homeric proportions of Turkey Reiter or Slugger Jones; of scurrying over the gridiron, darting through a maze of frantic tacklers like Flash Condit, who had scored against the Princeton 'varsity in that glorious eight to four game; of knocking out dramatic home runs like Cap Keefer, that bring joy out of sorrow and end in towering bonfires. These are glories which all may dream of but few attain.

Neither did he ask for the gifts of a Hungry Smeed, for to possess the ability to eat forty-six pancakes at a sitting was a talent that is not lightly bestowed. No, he did not ask for fame, all he asked was to be remembered; for some incident or accident to come which would mark him with a glorious, fantastic nickname

"Look Out, Fellows, I'm Going to Slide!"

that would live with the Triumphant Egghead or the Duke of Bilgewater. And Fate, which sometimes listens to prayers, was kind and brought him not only a nickname but fame—real enduring fame. For in the most extraordinary way it came to pass that George Barker Smith unwittingly accomplished a feat which no boy had ever dared before and which it is extremely unlikely will ever be duplicated in the future. And this is the manner in which greatness was thrust upon him.

In the last days of the month of September the school returned from the fatiguing period of vacation to seek recuperation and needed sleep in the classrooms. George Barker Smith found himself at last a full-fledged fourth former, one of the lords of the school, member of a free governing body, with license to burn the midnight lamp unchallenged, to stray into the village at all hours, to visit the jigger shop during school and remain tranquilly seated when a master bore down from the horizon, instead of joining the palpitating under-formers that just at his back crouched, glasses in hand, behind the counter. No longer did he have to stand in file once a week before the Bursar to claim a beggarly half-dollar allowance. Instead, once a month he strolled in at his pleasure and nonchalantly tendered checks for fifty dollars, with which allowance his parents, for one blissful year only, fondly expected him to purchase all the clothes necessary—per agreement.

He could hire a buggy at ruinous rates and disappear in search of distant cider-mills or visit friends in Princeton, who had gone before. Finally, his room was his castle, where no imperious tapping of a lurking undermaster would come to disturb a little party at the national game, for chips only, of course.

George Barker Smith's room was on the third floor back and had attached to it certain communal rights. Even as the possession of the ground-floor rooms in the underform houses entailed the obligation to assist at all hours of the night the passage to the outer world, and to assure the safe return therefrom, so room 67 was the recognized highway to the roof of the Upper, when the thermometer had mounted above seventy-eight degrees Fahrenheit.

Those who sought the cooling heights sought security and (be it confessed, now that an inconsiderate Faculty's sanction has made smoking no longer a pleasure but a choice) the companionship of the Demon Cigarette or the "coffin nail," as it was more affectionately known. The guardianship of this highway, if it entailed responsibilities, also brought with it certain perquisites and tariffs in the shape of an invitation without expense.

Now, George Barker Smith did not like the odor of tobacco in the least, and he particularly disliked the effects produced by the cheap cigarette which the price rendered popular. But once a fourth former there were so few rules to break that this opportunity had to be embraced as an imperative duty, and so he resigned himself, pretending (like many others) to inhale and enjoy it.

The last weeks of September were unusually hot and distressing. The stiff collar disappeared. Two-piece suits became the fashion for full dress and fatigue uniform consisted of considerably less. The day was passed in long, grumbling siestas under the shade of apple trees or in a complete surrender to the cooling contact of peach and strawberry jiggers. Even games lost their attraction, and the only sign of life was the pleasant spectacle of the heavy squad on the football team, puffing protestingly about the circle under the cruel necessity of reducing weight.

After dark, bands were organized which stole away, through negro villages, arousing frantic dogs, to the banks of the not-too-fragrant canal, where they spent a long, blissful hour frolicking in the moonlit water or raising their voices in close harmony on the bank. Other spirits, not so adventurous, contented themselves with lining up behind the Upper in white, shivering line, while the hose brought comfort as it played over the grateful backs.

Naturally, at night, smoking up the flue, even with the whispered conversations with the boy below and the boy across, lost all charm. The roof became a veritable rookery. Mattresses were carried up, and hot, suffocating boys lolled through the raging night swapping yarns and gazing at the inscrutable stars.

On a certain evening, hot among the hottest, George Barker Smith, in that costume which obtained before the publication of the first fashions, was sitting at his desk in a conscientious endeavor to translate one paragraph of Cicero, which he held in his right hand, for every chapter of the Count of Monte Cristo, which he held in his left.

At his door suddenly appeared the Triumphant Egghead and Goat Phillips, whose title at this time had been conveyed solely for the butting manner of his attack. Each had likewise reached that stage of dishabille where there is little more to shed.

"Hello, old Sockbutts," said Egghead genially.

"Hello yourself," returned Smith non-committally.

"We're going up on the roof," continued the Egghead. "Any one up yet?"

"Not yet."

"It's hot as blazes," said the Goat. "Better come along."

"I ought to finish this Cicero," said Smith, wondering if he could leave his hero in a sack, ready to be plunged into the dizzy waters below.

"Oh, come on," said the Egghead; "I'll give you that when we come down. Have you any matches? I've got the coffin nails."

A slight shower had ended a few minutes before without bringing relief from the heat.

"Are you coming?" said the Egghead, already out of the window. "Don't be a grind, Smithy."

"Sure, I'm with you," replied Smith, following, after a last glance at Monte Cristo.

The Goat had gone first, then the Egghead, with Smith bringing up the rear.

"Look out, fellows," whispered the pilot, lost in the darkness ahead. "It's slippery as the deuce!"

The way led up a gutter to the peak of one slope, down that, up another and over to a cranny which formed about the back chimneys. The still moist tiles were in fact slippery and treacherous, and their movements were made with calculation and solicitude.

Smith, arrived the last at the top of the first peak, waiting until the Egghead had descended and climbed in safety to the next ridge, glanced down the twenty feet of slippery slate, and, tempted, called out:

"Look out, fellows, I'm going to slide!"

The Goat and the Egghead, in unison, cried to him to desist, for the second ridge which ended the slope of the first had a downward inclination toward the edge of the roof that made it exceedingly dangerous.

"You Did Sit Down Rather Hard," Remarked the Doctor

Just how it happened has never been satisfactorily settled: whether Smith actually intended to slide or whether he lost his grip and started unwillingly. However it may be, Egghead and the Goat, astride the second ridge, were suddenly horrified to see Smith's naked body shoot down the slope, strike the moist incline at the bottom, and, bounding down that, with increased velocity disappear over the roof. They heard one thud and then another in the gravel path, three stories below.

The two clung to each other with a dreadful sinking feeling.

"He's dead," said the Goat solemnly. "Poor old Smith is dead."

"Squashed like a bug," said the Egghead. "We won't even recognize his remains, I guess."

"Egghead, it's all our fault—all our fault."

"Shut up, Goat, and don't blubber."

"I'm not."

"You are—for Heaven's sake, brace up! We've got to get down to him!"

They started fearfully over the treacherous return, reaching Smith's room thoroughly unnerved. Then they began to run down the stairs, calling out:

"Smithy's dead!"

"Smithy's fallen off the roof!"

On their trail came a motley assortment of excited boys, rushing out of every room. Without a single hope they tore around to the back of the Upper, and there, sitting bolt upright in the position in which he had fallen, they found George Barker Smith. They stopped astounded.

"Smith, is that you!" Egghead said in a hoarse, incredulous whisper, and the answer returned faintly:

"It's me, Egghead."

"Are you dying?"

"I don't know."

"Are your bones all broken?"

"I don't know—I'm full of gravel!"

The boys gazed astounded up at the dark outline three stories above them. Half-way, the slanting roof of the porch had broken the fall and saved him from certain death. They gazed in silence, and then the chorus rose:

"Holy cats!"

"Great snakes!"

"Marvelous!"

"Can you beat that!"

"Mamma!"

"Simply marvelous!"

Smith, still in a comatose condition, caught the sounds of astonishment, and suddenly comprehended, first, that he had done something without parallel in school history, and second, that he was alive.

"You fellows, get me upstairs," he said gruffly, "and send for Doctor Charlie. I want to get this gravel out of me."

Macnooder and Turkey reverently carried him to his room, while Shy Thomas, who was clothed in a dressing-gown, went streaming across the campus for the doctor.

A quick examination revealed the amazing fact that not a bone had been fractured.

"You've got a few bruises, and that's all, by George!" said the doctor, looking at him in open-eyed wonder.

"It's the gravel that bothers me," said Smith, twisting on his side.

"You did sit down rather hard," remarked the doctor, with a twitch of his lips. In half an hour he had removed thirty-seven pieces of gravel, large and small, and departed, after ordering rest and a few days' sojourn in bed.

Hardly had the doctor departed when Macnooder arrived, full of importance and enthusiasm. For a moment he stood at the foot of the bed surveying the bruised hero with the affectionate and almost fatherly joy of a Barnum suddenly discovering a new freak.

"My boy," he said happily, "you're a wonder. You're great. You're it. There's been nothing like it ever happened. Smithy, my boy, you're a genius. You're the wonder of the age!"

"I suppose every one's excited?" said Smith, faintly realizing that Fate had touched him in her flight and made him famous.

"Excited? Why, they're howling with curiosity,"

responded Macnooder, who, having cautiously turned the key in the door, returned and continued with importance: "Say, but I suppose you don't realize what we can make of this, do you?"

"What do you mean?" said Smith.

"First, where are those thirty-seven pieces of gravel?"

"I threw them away."

"My boy, my boy!" said Macnooder, sitting down and burying his head in his arms. "Pearls before swine."

"But they're over there in the basket."

Macnooder, with a cry of joy, flung himself on them, counted them and thrust them into his pocket.

"Smith," he said condescendingly, "you've got certain qualities, I'll admit, but what you need is a manager!"

"Why, what are you thinking of, Doc?" said Smith, who began to have a suspicion of Macnooder's plan.

"I suppose you would expose your honorable scars," said Macnooder disdainfully, "to any one who asks to see them?"

"Why not?"

"Just out of friendliness?"

"Yes."

"Smith, you *are* a nincompoop! Why, my boy, there's money in it—big money. Never thought of that, eh?"

"How so?"

"Exhibitions—paid exhibitions, my boy! We'll organize the greatest side-show ever known."

Smith blushed at the thought.

"Won't it be rather undignified?" he said doubtfully.

"Dignity, rats!" said Macnooder. "Talk to me of dignity when you hear the gold rattling in your pocket, when you lodge in a marble palace and drive fast horses up Fifth Avenue. My boy, you don't know what you're worth. I'll paper the campus to-morrow. I'll get up scareheads that'll bring every mother's son of them scampering here to see you."

"What do I get out of it?" said Smith cautiously

"Half!"

"You low-down robber!"

"Who had the idea? Would you ever have made a cent if it hadn't been for me? Do you suppose any attraction ever makes as much as his manager? My boy, I'm generous! I oughtn't to do it! Come now—is't a go?"

"Well—yes!"

"Wait till you see the posters," said Macnooder, squeezing his hand joyfully, "and mind, no private exhibitions. Promise?"

"I promise."

"Under oath?"

"So help me."

"Ta, ta."

Left at last alone, George Barker Smith could hardly seize the full measure of his future. Doc was right, it was the biggest thing that had ever happened. In one short hour everything had changed. Now he was of the elect—a part of history, a tale to be told over whenever one old graduate would meet another. Even Hungry Smeed's great pancake record would have to be placed second to this. Other more distinguished appetites might come who would achieve fifty pancakes, but no boy would ever go the path he had gone. He was famous at last. At Prom and Commencement he would be pointed out to visitors in the company of Flash Condit, Cap Keefer and Turkey Reiter. Only yesterday he was plain George Barker Smith, to-morrow he might be . . .

What would the morrow bring? Who would name him? Would it be Macnooder or Turkey or the Egghead, or would some unsuspected classmate find the happy expression? He hoped that it would be something picturesque, but a little more dignified than the Triumphant Egghead. He tried to imagine what the nickname would be. Of course, there were certain obvious appellations that immediately suggested themselves, such as Roofie, Jumper, or, better still, Plunger Smith. There was also Tattoo and Rubber and Sliding, but somehow none of these seemed to measure up to the achievement, and in this delightful perplexity Smith fell asleep.

"Hello, Old Sockbutts," Said Egghead Genially

OLD IRONSIDES

THE GREATEST SIDE-SHOW ON EARTH ON EXHIBITION AT ROOM 67 UPPER

Come one, Come all! Come and View the HUMAN METEOR, THE YOUNG RUBBER PLANT, THE FAMOUS PLUNGING ROCKET, THE WORLD-RENOWNED SMITH, THE BOY GRAVEL YARD!

Come and see the honorable scars! No private exhibitions. This afternoon only! Old Ironsides is under contract not to bathe in the canal this fall. This is your one and only opportunity to see the results of Old Ironsides' encounter with the gravel path!

Come and see the 37 original guaranteed and authentic bits of gravel which dented but could not frustrate!

ADMISSION, 5 CENTS FRESHMEN, 10 CENTS

$500 REWARD $500

To any one who will duplicate this mad, death-defying feat. MR. MACNOODER, on behalf of Old Ironsides, will offer the above reward. Doctor's or Undertaker's bills to be shared in case of failure.

ROOM 67 ROOM 67

Exhibition begins at 2 o'clock.

The above posters, prominently displayed, produced a furore. By two o'clock fully one hundred boys were in line before room 67. At two o'clock Macnooder addressed the crowd.

"Gentlemen, unfortunately a slight delay has become necessary—only a slight delay. Mr. Ironsides Smith's sense of natural delicacy is at present struggling with Mr. Ironsides Smith's desire not to disappoint his many friends and admirers. Just a slight delay, gentlemen—just a slight delay."

A cry of protest went up and Macnooder disappeared. At the end of five minutes he returned radiant, announcing:

"Gentlemen, I am very glad to announce to you that Old Ironsides will not disappoint his many admirers. Only we wish to be understood that this is a strictly scientific exhibition with an educational purpose in view. No levity will be tolerated. The exhibition is about to begin. Have your nickels in hand, gentlemen; ten cents for freshmen, with the privilege of shaking hands with Old Ironsides himself! Absolutely unique, absolutely unique!"

When the last spectator had filed out, Macnooder and Smith divided fifteen dollars and twenty cents as pure profit, of which sum the gravel-stones had brought no less than a third.

When on the fourth day Smith was able painfully to descend the stairs and circulate in the world again he felt the full delight of his newly-acquired fame. At the jigger shop, Al graciously waved aside his tendered money, saying:

"I guess it's up to me, Ironsides, to stand treat. Such things don't happen every day. Go ahead—do your worst."

Bill Appleby and "Mista" Laloo, the rival livery men, Bill Orum, the cobbler, Barnum of the village store, even Doc Culbery, the bell-ringer, with his little dog, stopped to watch him pass by. When he crossed the campus youngsters gamboled up to his side with solicitous inquiries and the inevitable:

"Say, weren't you awfully scared?"

Even in the classroom the Roman, after flunking him, would say:

"That will do now, Smith. You may sit down—gently."

So he was now "Old Ironsides." He liked the name and was proud of it. It had a certain grim, uncompromising sternness about it that lent it dignity. It sounded well and it had patriotic associations.

For a whole week he knew the intoxication of popularity, of being the celebrity of the hour, of the thrill that runs up and down the back when a dozen glances are following, and the music of a murmured name, admiringly pronounced. Then abruptly another hero was exalted and he fell.

One evening after supper, while the fourth form lounged on the esplanade of the Upper, Turkey Reiter and Slugger Jones amused themselves with teasing Goat Phillips, who, being privileged by his diminutive size, responded by butting his tormentors in vigorous fashion.

"My, what an awful rambunctious, great big Goat," said Reiter, defending himself. "Do goats eat neckties?"

"I'll eat yours," responded the youngster recklessly.

"Ten double jiggers to one you can't do it," said Slugger Jones lazily.

"Give me the tie," responded Phillips.

More to continue the joke than for any other reason, Turkey detached the green and yellow cross tie, which was his joy, and tendered it. What was his amazement to see Goat Phillips calmly set to work to devour it, and to devour it to the very last shred in the most classic goat-fashion.

When he had swallowed the last mouthful he stood stock-still and gazed at his shrieking audience. Then he began to have doubts; then he began to have premonitions. Then he ended by having settled on rather the most unsettling convictions. The consideration of the act came after the accomplishment, but it came with terrifying force. What would happen now?

"Turkey," he said, grown very solemn, "you don't think I'm going to be poisoned, do you?"

Turkey became serious at once. Every one became serious.

"What do you fellows think?" said Turkey addressing the crowd.

No one had any opinions to volunteer. There were no precedents to go by.

"He might get ptomaine poisoning," finally suggested Shy Thomas.

"What's that?" said Goat, horrified. Shy was forced to confess that he did not know. Hungry

(Concluded on Page 25)

"Come One, Come All, and View the Human Meteor, the Famous Plunging Rocket!"

Brains That Make Billions

Building Up Farm Products by Scientific Breeding

Plant-Breeding Nursery. Bundles from Single Parents are Wound with Muslin to Prevent Loss by Birds

By W. M. HAYS

HEREDITY, like electricity, is coming rapidly into man's hand to be used to increase production. It is a form of energy even more subtle and less understood than electricity. Scientists are studying both. Burbank is showing the world how to harness up and use the forces of heredity, as Edison shows the world how to harness and drive electricity. The electrician deals mainly with the more exact chemical and physical phenomena of energy; while the breeder deals with the changing energy of living protoplasm. The one constructs machines which perform work man could do, but not in such great quantity; the other originates new plants and new animals which perform work man cannot do. It is fair to estimate that, of the twenty-seven billion dollars of our annual national production, electricity and breeding may each be credited with one billion dollars. It is also reasonable to expect that each will have added another billion annually by the time our total production reaches thirty-seven billion dollars. As countless water-powers along our streams are waiting for the electrical engineer to bring them into the service of man, so the choicest blood-streams of heredity in the various species of plants and of animals are waiting for the plant breeder or the animal breeder to segregate them and make them available.

Scientific breeders believe that every species is amenable to improvement by breeding; that every species has in it individuals with rare value for producing progeny along desired lines, rare centgener power. The word centgener, meaning of one birth (literally a hundred of one generation), has been coined for use in expressing the breeding power, or the breeding value, of the individual plant or animal. Breeding power, projected efficiency, or the power of the individual plant or animal to beget valuable progeny, has come forward as a central idea in plant and animal breeding. Careful breeders are searching each species for the occasional, the phenomenal individual; when found, the blood of all but that one, the one in many thousands, is discarded. This superior blood is then multiplied and sent to the growers to take the place of their half-civilized kinds, and thus these varieties are superseded by the improved kind. This is the method of improving plants or animals by simple selection.

What Heredity is Made to Do

BREEDERS have worked out a yet more radical method of producing improved varieties, the method of crossing or hybridization, followed by selection. Once those rare forms with heredity strongest in the lines in which improvement is desired are secured, new and more pronounced variations are created by bringing together, from widely separated sources, those of the same variety and crossing or hybridizing them. The resulting progeny diverge, or vary, more widely than the progeny of forms more closely related. The exceptional individuals among these are searched out and tested, in the hope of securing an unusual or phenomenal individual of much stronger breeding ability than any found in either of the stocks used as parents of the cross. Thus is created an occasional plant or animal which combines the best in each parent stock and has the rare power of projecting this new combination of values into its progeny. To illustrate, Dr. William Saunders, of Canada, by crossing the two varieties known as Fife and Ladoga, produced Preston wheat, which is earlier than Fife and yields better than either; Webber and Swingle, by crossing the sweet oranges with their wild relatives, produced citranges and tangerines, and Burbank, by hybridizing the black walnut and the English walnut, produced hybrid walnuts.

To produce the most radical variations widely differing varieties, species and even genera are crossed in making hybrids. When the breeder produces a radical cross he has usually greatly increased his work of selection. As a rule the blood-stream of these hybrid parents is full of eddies. The young are not alike. Great variation exists. Only one in thousands of the progeny is found to have stable heredity along the line desired. Many superior individuals must be selected and tested; and, if reproduced by seeds, the breeding power of each must also be tested, and all discarded but those of remarkable breeding performance. However, the increased labor is often more than repaid by the production of varieties of greater value than could be found among the progeny of either of the original varieties.

Whether the foundation stock is of a stable variety or is of recently hybridized blood and unstable, four important steps have gradually been developed in plant breeding. The first is to secure from a given species those varieties which most nearly meet the desired purpose. The second step is to select from these varieties those individual plants which, in yield, or quality, or beauty, or in a combination of desirable characters, seem to meet the need best. Using these selected individuals as parent plants, the third step is to test the breeding value of each, as by planting a hundred, more or less, of the seeds of a single generation from each mother plant, and, by making a comparison of all of the resulting seedlings, thus find their average value and determine which parent plants have the strongest power to breed for the desired type. A fourth step is often necessary to determine, under actual field conditions, the usefulness of the new blood thus secured. Only the seeds of those stocks proving best in the tests to determine breeding values are chosen for the field trials; and only the stocks which there yield the largest net value per acre are chosen to be increased for sale to growers. Throughout all these operations most careful records are kept, so that the exact lineage of each form which survives the sifting process may be known and use made of it for producing seeds to be used by growers, and as a basis for further improvements by selection.

In the application of the foregoing methods to the establishment of new types or the modification of existing forms by hybridization, the intermingling of numerous and varied characters may give quite startling and altogether unexpected results, often confusing and wholly unsatisfactory complications. Practical breeders are asking investigators to formulate more definite laws for their guidance. Nearly fifty years ago, Mendel, a German monk, discovered some laws of heredity which are coming to modify methods of breeders. These laws did not gain wide publicity until recent years, when similar studies by other men brought them to light and verified them. These investigations show that some characters, as height of stem and color of seeds in plants, or color of hair in animals, are unit-characters which persist in the stream of inherited blood and are reproduced in the individual as distinctly as are its specific characters. This fact was emphasized when it was found that two opposing unit-characters from different parents of the cross come into conflict in the forming embryo of the progeny and battle for supremacy, just as two plants growing in restricted quarters contest for food and light, or as two hungry animals fight over a bone or a box of meal. Even more remarkable is the fact that, of these two opposing unit-characters, the stronger, or "dominant," keeps back the weaker, or "recessive," in the first generation of the hybrid progeny every time this cross is made.

Student Judging the Fleece

Beware of the All-Ham Hog!

AND it is stranger still that, in the second generation of these hybrids when bred among themselves, the progeny come in a given numerical ratio—that is, three of the stronger dominants to one of the weaker recessives. It has long been known that characters may be dormant in the blood-stream of heredity, but that these atavistic characters occur in the ratio of one in four was most astonishing alike to those who make of heredity a scientific study and to practical breeders. Even yet more astonishing is the fact that these one-fourth recessives and one-third of the dominants, or one-half of the whole generation, are practically pure bred with reference to any single hereditary character. To illustrate: When red peas are crossed with white peas the red color is the stronger, and in the first generation will dominate or overshadow the white. In the second and subsequent generations, when those peas that are wholly white are bred among themselves, the resulting progeny are entirely white, without a trace of the dominant color, and when certain of the red peas, one-third, or one-fourth of the whole of the first generation of the hybrid, are bred among themselves, they are all red. That is, some characters are so definite that they will not readily mix in heredity, but, in part of the progeny, pass through that wonderful stage, the generative cell, without being mixed up with the blood of the other member of the cross. There has not as yet been much direct use made of the laws of Mendel in practical breeding. But they have led to many very interesting experiments which are now in progress in different countries, and much of practical value is expected to result from these researches.

There are few new ideas which are not taken hold of by extremists and utilized in trying to accomplish the impossible. Thus some would have us believe we can soon change spotted cattle to all white, or that we can utilize one polled male at once to take the horns off all of the cattle of the breed to which he belongs. The humorist, too, must have his turn, that by ridicule he may prevent practical men from becoming oversanguine as to what they can actually accomplish. He asks us to cross rye and mint to produce mint julep; to refrain from crossing the pig and the thousand-legged worm lest we clog the market with hams; to cross the bee and the firefly to create a bee that has a light by which it can work at night as well as by day; to avoid the exhaustion of our iron mines by crossing the spider and the wireworm so as to produce woven-wire fences; and to make a hybrid between the potato and the onion with power to make its eyes weep water for its own use, thus avoiding the expense of irrigation.

In the case of numerous species of plants, as wheat, flax, carnations and sugar beets, scientific breeders have already devised effective plans for ferreting out individuals with rare breeding ability along desired lines, and for thus creating new types or improving existing forms by using the subtle forces of heredity. In the case of other species, as timothy, clover, alfalfa, chestnuts and pines, the work has not proceeded so far. Nevertheless, through the operations of improved plant heredity there are now multitudes of recently developed plants—hardy oranges, plums, apples and other fruits; long-staple cottons; high-yielding cereal grains; beautiful carnations, chrysanthemums, gladioluses and other flowers; and even nut and ornamental trees—already given to the world or about to come forth commercially and add vast millions to the wealth of man.

What Five Dollars Accomplished

SUCH results are not beyond the practical breeder, as the history of countless varieties attests. In the middle of the last century, in France, Louis Vilmorin set out to increase the value of field beets as a forage crop. With strong faith in the unity of Nature and the underlying principles of organic development, he seized upon some of the methods already in use in the production of blooded livestock, and adapted them to the production of blooded plants. This was a great departure in plant breeding, and this method (now called "centgener testing"), elaborated and adapted by modern breeders, is one of fundamental importance in the creation of new types or the improvement of existing forms of life. Vilmorin's work with beets resulted in raising the sugar content of the sap from seven per cent. to fifteen per cent. This change in the heredity of a humble plant was the basis of a new industry in France and in other European countries—the beet-sugar industry—an industry which, under Secretary Wilson's leadership, has now become thoroughly established in this country. The potency of that subtle character in Vilmorin's selected beet plants, chosen for their peculiar power to increase the sugar in the sap of their progeny, has added millions to the wealth of the world.

On the balance-sheet of the farmers and orchardists of the middle Northwest, not less than a million dollars may be placed to the credit of a single variety of apple, appropriately called the Wealthy. The peculiar heredity of this apple tree, which enables it to thrive farther north than any other really good variety of apple, was all wrapped up in one minute germ in one small apple seed. This seed was planted on the shore of beautiful Lake Minnetonka, in Minnesota, by Peter Gideon, along with many other seeds he secured from his old home in Maine. For a man struggling to gain a foothold on a claim in a Northwestern wilderness, with a family depending on him for the necessities of life, with a Minnesota winter staring him in the face, without money and literally "without a coat to his back"—for a man in the face of all these untoward conditions, and despite the entreaties of his wife, to invest five dollars of borrowed money in a half-bushel of apple seeds, would at least mark him as decidedly peculiar, if it did not cast doubts upon his sanity. Yet that is what Peter Gideon did. He braved derision, discomfort, deprivation. He was a man of resources, and his lack of a coat he himself supplied by manufacturing one from an old vest, using trousers' legs for sleeves.

Patten's Greening, originated by C. G. Patten, of Iowa, is even more valuable than the Wealthy, as a winter apple adapted to sections of country where other varieties winterkill—to the great spring wheat region where, but for it, the farmer would often be without apples for winter use.

The Burbank potato, originated by Burbank in his boyhood, has yielded probably the largest aggregate of additional wealth of any of the new things created by the American school of plant breeders of which Mr. Burbank is the dean.

The Minnesota and the Ontario agricultural experiment stations each expended forty thousand dollars in breeding wheat, oats, corn, flax, barley and other field crops; and the increased production in each case is estimated at a thousandfold, or forty million dollars. Supposing this estimate to be ten times too large, which is impossible, even then each dollar of public money used has returned a hundred dollars.

Student Judging a Fat Ox

One variety of wheat, "Minnesota No. 169," has spread to a large acreage, estimated at over a million, and is adding two dollars an acre. "Minnesota No. 25" flax is rapidly crowding out its parent, common flax, from hundreds of thousands of acres—because it yields 25 per cent. more seed. "Minnesota No. 13" corn has gained a very wide use from Lake Michigan westward through three States, helping to carry the corn belt fifty miles farther north.

Dealing in grain, flour milling, the making of linseed oil and other industries are enlarged by the breeding of field crops, and more corn makes more cattle, and all this increased production and work increases the number of folks in the State and increases the per capita wealth. It has passed the theoretical stage and has taken hold of the State's great industries.

Some very important experiments have been made in methods of distributing valuable varieties of plants, and effective methods of distribution have proven nearly as necessary as are effective methods of creative breeding. Giving away new or introduced varieties of plants without first very thoroughly testing their adaptability to the region to which they are sent has proven unsatisfactory to growers and has often put into disrepute those experiment stations and seed firms which have practiced it. On the other hand, the effective distribution of seeds and plants, whether newly created or recently introduced, after they have been adequately tested and actually proven to be valuable to growers, besides highly accrediting the distributers, has often been the means of creating new markets and of increasing the aggregate wealth of whole sections of the country.

The Great-Grandparents of the Navel Orange

THE introduction of pure-bred seeds, plants or animals is best done by expert breeders who are making profits by selling pure-bred stocks at prices sufficiently higher than the regular produce market price to pay for their enterprise, care, advertising, and long adherence to a specialty. Some State experiment stations have wisely secured, as coöperators, farmers and nurserymen accustomed to producing pure-bred seeds and plants, and, through these men, have sent out commercially to growers varieties which by previous adequate trial have been thoroughly tested and proven to be valuable. For such varieties the State experiment station establishes prices sufficiently high so that growers of these pure-bred stocks can make a reasonable profit, and will therefore exert great effort to place them at reasonable prices in the hands of all enterprising farmers.

Since growers of pure-bred seeds are as much a necessity as growers of pure-bred livestock, some State experiment stations have taken the lead in organizing them into State associations, as, for example, the Minnesota Field Crop Breeders' Association. By keeping the number of coöperators large the experiment station can avoid any accusation of allowing a monopoly, and can thus so enlist growers of pure-bred seeds and plants that they will distribute valuable new varieties of certain kinds far more rapidly and more widely through the State than can the station unaided by such a class of experienced men. True, some new varieties do not need this machinery for distribution. For example, in California there are vast orchards of the navel orange which may be traced to two scions sent out from the United States Department of Agriculture. Some varieties need a still different plan for their distribution. As departments of agriculture and experiment stations gain experience in distributing new varieties of great value, methods of distribution will be more fully developed and made more effective.

Crossing Two Kinds of Flax at the Minnesota Experiment Station

The trend of events indicates that each State will take a sane, broad and active view of the realities in plant breeding, and will organize a State plant breeding establishment commensurate with the task of creating new heredity values. If the claim is proven that, by means of plants amenable to the breeder's art, ten per cent. may be added annually to the value of the three billion dollars' worth of our plant products, all must agree that no reasonable effort along this line is too great. The addition of three hundred million dollars to our production of grains, forage, fruits, vegetables, by the development of the proposed State breeding establishments, is an important matter of statesmanship. Minnesota, Nebraska, Iowa, Colorado, Wisconsin, North Dakota, South Dakota, Kansas, Ohio and a number of other States are starting to build up these enterprises. The United States Department of Agriculture is developing specialists, each trained in breeding certain species or groups of species, and, through these men, is widely coöperating in this work with public institutions and with independent breeders.

There is also a great deal of collateral work being undertaken by these State and Federal institutions in reorganizing farm fields, in bettering methods of soil management, in choosing better schemes of crop rotation, and in various other ways improving the conditions under which the new varieties of plants are grown. No doubt more than an additional three hundred million dollars will also be added by these new cultural methods, and at great profit, but the cost will be vastly more than will be the cost of improvements through breeding. The cost of breeding is relatively slight and once done there is little further cost; while the cost of fertilizers, better tillage and many other expenses for superior work recur annually. Gold mines are not in the habit of yielding one hundred dollars from the investment of one dollar, or ten thousand per cent. Burbank recently said to the writer: "The right man under favorable conditions can make one dollar yield a million dollars in plant breeding."

Animal breeding suddenly finds itself in need of catching pace with the production of new crops, for during the past ten years plant breeding has changed from a place trailing far behind animal breeding to one comfortably in advance. Animal breeders have not so easy a proposition as have some plant breeders. In the breeding of potatoes, strawberries or apples, the originator of a new variety is through with his work when he has a single plant of the right heredity. This plant is cut into many pieces, and the cutting, runner or scion is put into the soil, where it develops into a new plant with the exact heredity of the plant of which it was a part.

Some Amazing Achievements in Breeding

SOME of the difficulties met in breeding animals parallel those met in breeding corn, in which instance the seeds are always open to adulteration by cross-pollination, and variations due to this crossing render continual selection necessary. Besides, the breeder of large animals cannot afford the large numbers necessary for passing in review—in his systematic and diligent search for the rare animal—the animal of superlative breeding power which can impress itself on its progeny. Moreover, each generation of larger animals requires years, while in some cases the plant breeder can secure two generations in one year. Some scientists are studying heredity with certain beetles and other insects, with which they secure six or more large broods in a year, and these large numbers afford ample data for generalizations.

The breeding of animals is full of brilliant achievements. A unique record in America has been made by N. H. Gentry, of Sedalia, Missouri. He found a Berkshire hog which in two respects was a prodigy of that breed. He had wonderful power to perpetuate his form, his vitality, his feeding power and his early maturity into his progeny; but he was also a prodigy in the power of his blood to endure inbreeding. Mr. Gentry found by repeated efforts that the closely inbred progeny of this hog

(Concluded on Page 32)

The Science of the Pay Envelope

Bigger Wages and Better Work the Product of the New Plan

Another Superintendent has a Certain Chair in His Office in Which Nobody but a Workman is Permitted to Sit

By JAMES H. COLLINS

ILLUSTRATED BY F. V. WILSON

ONE Saturday noon several years ago the superintendent of a large machinery works in Lancashire came into his chief's office with a long face and a short announcement.

He said that the fatal hour was at hand. The decisive blow had fallen.

For many months this establishment had been watching the progress of a competitor over in Yorkshire. Superintendent and proprietor knew there was but one way in which any competitor could touch them vitally. And now this rival had found that way.

"They'll really go, eh?" asked the proprietor.

"Twenty, sir," was the dejected reply. "We shall be short-handed Monday week, and handicapped for six months at least."

The chief wasn't so cast down.

This machinery works has, for three generations, manufactured certain apparatus used in spinning some of the inelastic fibres. On its office walls hang patents granted to the founder eighty years ago. These have long expired, yet it is an education in good English merely to read them. All over the world its machines are standard and indispensable. The consignment received two years ago by an American trust, for instance, was studied by some of our best machine builders. They took a specimen to their shops, dismantled it, and tried to build something as good at about the same price. But they couldn't approximate either quality or cost, even with the help of our tariff, and when that trust wanted more apparatus it had to send to England again.

The merit of this British establishment's machinery is due partly to knowledge gained through three generations, with good design. The rest lies in its efficient corps of workmen. The new competitor over in Yorkshire had no more been able to touch it in quality than the American builders, nor to sell at prices sufficiently lower to compensate for the different quality. But, during a period of heavy demand for such apparatus, the newcomer got trade that the older concern could not take care of, the latter skimming the cream off the most profitable demand.

When Science Knocked Out Dollars

NOW, however, the Yorkshire house had come for some of the Lancashire manufacturer's mechanics, and was getting them away. Agents had been sent to offer higher wages. Some of the best men, tempted, had given notice. This was a blow under the belt.

The superintendent wanted to know what must be done.

His employer said, "Nothing whatever—let 'em go."

And absolutely nothing was done. Higher wages might have been offered The men might have been reminded of the long relation that had existed between them and their old employer. Instead, they were permitted to pack tools and leave as though with the heartiest good will. The first twenty had so congenial a leave-taking, in fact, that others followed in a week or two.

But within a month all those workmen were back at their old benches, at the old wages, and mighty glad to be there. The competitor had paid higher wages, as promised. Yet he could not hold them, nor get them to give the same amount of work.

For one thing, his working conditions were not so attractive—his shops were not as clean or light. And he didn't know how to pay wages scientifically. He thought wages were simply a matter of handing out so much money every week.

The older concern, on the contrary, has a wage-system developed through years of experience, with many adjustments of disputes. It is a system under which men have a free hand for speeding, yet without unjust "pace-making," and with few chances for inferior work to slip through.

Each department is in charge of a foreman. Men are paid piece-work rates. No piece-rate is ever cut unless some new labor-saving device is installed. Then a new rate is set and adhered to. To insure quick work and good, each foreman is paid a premium on every machine leaving his department. But he forfeits this premium should any defect develop in a machine after sale. A piece of that apparatus might break down years after, in India or Massachusetts. The defect would be traced back to the foreman responsible for letting it pass his inspection, and he would not only have to refund his premium but would have the disgrace of bad work as well, which in *this* plant is a real stigma.

When the competing concern stole these men and started them on a system discarded by the older plant years before it was bound to lose, and did. It simply paid money for work, and got less work.

Adjustment of forces in such a plant is so delicate that six weeks of bad times, with laying off of men, usually means loss of the year's dividend. But this wage-system, together with clean, light workshops and other minor considerations, brought those mechanics back so quickly that the dividend wasn't affected.

The American pay envelope is a great institution.

Our factories alone pay out $2,600,000,000 yearly in wages. Our railroads add $840,000,000 more—forty cents wages on each dollar they receive, it is figured. Pittsburg's pay-roll, in good times, is a million dollars a day, counting Sundays.

Mere size, however, isn't the only consideration. How it is made up and handed out—these count, too. So employers are all interested in wage-systems, and the latter are endlessly varied, while many of the labor troubles are fought out not so much over amount of wages as the system by which they are paid. Just the tiniest little screw loose in a factory's wage-system plays hob, and such tiny screws *will* insist upon getting loose in a plant where everything is ostensibly running blithely.

In one of the departments of a great American watch factory, for example, a new boy was put to work one morning.

He was about the best boy that ever went to work in that plant. He had twice as much upper story to his cranium as any of the round-faced Polish lads working there, and only half as much muscle and animal activity.

His job was polishing wheels, or mainsprings, or some other of the 3700 operations needed in turning out a watch, and it was piece-work. Where the Polish boys did eight dollars' worth of work a week with their muscles, this new chap went to work with that tall head of his, and by the end of the first week had schemed out a system by which he earned sixteen dollars. The idea of anybody making that much money in this department, however, shocked the superintendent. Without investigating, he cut the rate, so that the Polish boys made but six dollars. The new boy was interested in the work by this time, and set his head going once more, and schemed another scheme that brought him up to sixteen dollars again, and shocked the superintendent a second time, and brought another cut that landed the Polish boys on a common level of four dollars. And still the new boy wasn't discouraged. He thought harder than ever, with the outcome that, in two months, the piece-rate in that department was cut *four times*.

What the New Boy Brought About

THEN the new boy concluded that, while the work was very pleasant and the wages good, still he believed he didn't want to be a great watchmaker. He would rather be a great editor. So he quit and got a job as a galley-boy in a printing-office.

By that time all the Polish boys were down to wages so low that it was not certain but that, when Saturday night came, they owed the company something for the privilege of working in its fine plant. For none of them could hope to keep up with this phenomenon of a boy who had come in and unsettled wages, and then gone away again. So there was trouble, and many quit, and others took their places and quit, too, and, finally, that department bred a strike that was the scandal of a factory that had always had happy relations with its people, and for two years, long after the original cause of all this trouble had gone away and been forgotten, there were complaints and heartburnings and friction in that department.

Obviously, here was a superintendent who didn't know his own factory. Otherwise, no cut would ever have been made on that class of piece-work; but, instead, the remarkable talent of the new boy would have been discovered, and overtures made to him to stroll around the place and see if he couldn't suggest improvements in the way the product was being turned out.

Hundreds and hundreds of strikes have grown from precisely this cause—either a "pace-maker" being entertained unawares, and followed no further than the pay-roll, or else a "pace-maker" introduced intentionally where employees are working on piece-rates for the purpose of speeding production. The next inevitable step, in most cases, has been a reduction of the rate. And the *next* is usually a strike.

It is on this side (the blind side of many employers) that far-sighted men to-day are building up wage-systems based on science as sound as that brought to bear in any other technical manufacturing problem. These systems are first laid down right, then administered

Rigid Specialization of Work is Another Factor. No Workman Now Grinds His Own Tools

justly, and they bring out initiative, inspire loyalty, give an output free of restrictions, and attract the best workers.

The principle of most of them is payment of a bonus or premium for extra production. Sometimes such payment is added to regular day's wages. Again, it is a bonus on a piece-rate.

Many sounding phrases have been tacked on to different types of this system. Some sanguine persons call it "coöperation" or "profit-sharing." In plainest terms, however, the employer makes a contract with his men and both live up to it. He makes a price and sticks to it. It is a fair price, and the workman can earn every cent he is capable of earning, knowing that his extra effort isn't going to handicap or lower the wages of men alongside him. And what he earns is paid, not in dividends or a share of profits at the end of the year, but in wages every Saturday, in the pay envelope, in real money that can be handled, counted, spent.

Furthermore, this newer wage-system strikes at the ugliest spot in the whole labor problem—which is that unlovely thing known as restriction of output by employees. The day for high invective about it has passed. Employers have begun to investigate in their own shops, and those who have gone furthest in their studies now admit that restriction was often a measure of self-defense. The "pace-maker" with his heart in the work, like our friend in the watch factory, stimulated production, set a new mark, and brought about a general cut in rates. It was not always a deliberate cut, either, but often a blind slash, based on nothing more than one man's time-card.

This newer science of the pay envelope is far-reaching.

In one case an expert was engaged to see what could be done about bringing harmony to the discontented work-force of a large machine-shop in the Middle West. When he got through the whole business was reorganized, down to the very selling staff, and he finished by becoming president of the company.

There the old practice was to turn a "pace-maker" into the plant haphazard, and blindly require all workmen to come up to his abnormal efficiency; *this* sort of employee first goes to work out absolute data of production. Good mathematical skill is brought to bear on the production of an average mechanic in machining metal parts. Perhaps thousands of these parts are to be turned out. During the past decade much has been learned about absolute laws of working metal, the speed at which lathes and milling machines should be run for different classes of work, the angles at which tools should be ground and set, the depth of cut to be taken, and so forth. Armed with such knowledge, a well-paid "theory man" lays out the work, arranges different operations in the best sequence for economy and speed, and sends the job to the shops with its rate plainly marked on a time-card, as well as the order of operations and the hours and minutes in which the work ought to be done. Then a bonus is paid for each minute a workman saves over this schedule.

That the system is fair is proved by the good premiums earned where it has been properly installed.

In assembling work a similar plan is followed. Here, however, the theory is arrived at chiefly by timing an average man with a stop-watch. The mass of stop-watch data accumulated in five years by three or four experts in this field is something imposing. It might very easily grow to be all a matter of split seconds and tables were it not for the element of "horse sense" that has been present in the works where most has been done along this line

Rigid specialization of work is another factor. It goes so far, in some instances, that a machine-shop force of a half-dozen men has been divided into that many specialists, and successfully. No workman now grinds his own tools, for example. Under the best modern practice it is done for him in a special department, fitted with instruments of precision, for tool-grinding is now a matter of exact angles

Such wage-systems are ordinarily applied against the opposition of the men. Far from being an altruistic love-feast, or anything approaching a Sunday-school picnic, the men have been known, at the outset, to devise cunning schemes to down the system. It is the province of the man at the top, however, to be big, and human, and tactful, and patient. He takes a force of men who are drawing day's wages. Their pay envelope is the last thing he touches; in fact, he lets them alter wages of their own volition. Operations are systematically adjusted, waste time eliminated by good supervision, extra men hired as instructors. At the end of a few weeks the production grows so amazingly, and with so little extra effort, that the men ask to be put on piece-work. In one department of a certain shop, mechanics at three dollars a day went on to piece-work, and immediately averaged four and a half to five dollars. At the same time the company saved fifty-five thousand dollars a year in that department.

The stoutest opposition comes, curiously enough, not from the men, but from foremen. For the latter have better jobs at stake, and pride in their own system. They fear that, if the new system makes a fine record, a stigma will be cast on their old methods. So the foreman has to be tactfully tutored, too. His education is accomplished

(Concluded on Page 31)

HAMMERING STONE

Bobby Burnit Breaks an Enemy Over the Wheel of Publicity

By George Randolph Chester

ILLUSTRATED BY F. R. GRUGER

I

ON THE first morning that Bobby Burnit walked into the office of the Bulletin as its sole owner and proprietor, he called the managing editor to him and asked:

"What, heretofore, has been the politics of this paper?"

"Pale yellow jelly," snapped Ben Jolter wrathfully.

"Supposed to be Anti-Stone, hasn't it been?" Bobby smilingly inquired.

"But always perfectly ladylike in what it said about him."

"And what are the politics of the employees?"

At this Mr. Jolter snorted.

"They are good newspaper men, Mr. Burnit," he stated in quick defense; "and a good newspaper man has no politics."

Bobby eyed Mr. Jolter with contemplative favor. He was a stout, stockily-built man, with a square head and sparse gray hair that would persist in tangling and curling at the ends; and he perpetually kept his sleeves rolled up over his big arms.

"I don't know anything about this business," confessed Bobby, "but I hope to. First of all, I'd like to find out why the Bulletin has no circulation."

"The lack of a spinal column," asserted Jolter. "It has had no policy, stood pat on no proposition, and made no aggressive fight on anything."

"If I understand what you mean by the word," said Bobby slowly, "the Bulletin is going to have a policy."

It was now Mr. Jolter's turn to gaze contemplatively at Bobby.

"If you were ten years older I would feel more hopeful about it," he decided bluntly.

The young man flushed uncomfortably. He was keenly aware that he had made an ass of himself in business four successive times, and that Jolter knew it. By way of facing the music, however, he showed to his managing editor a letter, left behind with old Johnson for Bobby by the late John Burnit:

> The mere fact that a man has been foolish four times is no absolute proof that he is a fool; but it's a mighty significant hint. However, Bobby, I'm still betting on you, for by this time you ought to have your fighting blood at the right temperature; and I've seen you play great polo in spite of a cracked rib.
>
> P. S. If any one else intimates that you are a fool, trounce him one for me.

"If there's anything in heredity you're a lucky young man," said Jolter seriously, as he handed back the letter.

"I think the Governor was worried about it himself," admitted Bobby with a smile; "and if he was doubtful I can't blame you for being so. Nevertheless, Mr. Jolter, I must insist that we are going to have a policy," and he quietly outlined it.

Speechless with Red-Faced Indignation

Mr. Jolter had been so long a directing voice in the newspaper business that he could not be startled by anything short of a Presidential assassination, and that at press time. Nevertheless, at Bobby's announcement he immediately sought for his pipe and was compelled to go into his own office after it. He came back lighting it and felt better.

"It's suicide!" he declared.

"Then we'll commit suicide," said Bobby pleasantly.

Mr. Jolter, after long, grinning thought, solemnly shook hands with him.

"I'm for it," said he. "Here's hoping that we survive long enough to write our own obituary."

Mr. Jolter, to whom fighting was as the breath of new-mown hay, and who had long been curbed in that delightful occupation, went back into his own office with a more cheerful air than he had worn for many a day, and issued a few forceful orders, winding up with a direction to the press foreman to prepare for ten thousand extra copies that evening.

When the three o'clock edition of the Bulletin came on the street, the entire first page was taken up by a life-size half-tone portrait of Sam Stone, and underneath it was the simple legend:

THIS MAN MUST LEAVE TOWN

The first citizens to awake to the fact that the Bulletin was born anew were the newsboys. Those live and enterprising merchants, with a very keen judgment of comparative values, had long since ceased to call the Bulletin at all; half of them had even ceased to carry it. Within two minutes after this edition was out they were clamoring for additional copies, and for the first time in years the alley door of the Bulletin was besieged by a seething mob of ragged, diminutive, howling masculinity. Out on the street, however, they were not even now calling the name of the paper. They were holding forth that black first page and screaming just the name of Sam Stone.

Sam Stone! It was a magic name, for Stone had been the boss of the town since years without number; a man who had never held office, but who dictated the filling of all offices; a man who was not ostensibly in any business, but who swayed the fortune of every public enterprise; a self-confessed grafter whom crusade after crusade had failed to dislodge from absolute power. The crowds upon the street snapped eagerly at that huge portrait and searched as eagerly through the paper for more about the Boss. They did not find it, except upon the editorial page, where, in the space usually devoted to drivel about "How Kind We Should Be to Dumb Animals," and "Why Fathers

Should Confide More in Their Sons," appeared in black type a paraphrase of the legend on the outside: "SAM STONE MUST LEAVE TOWN." Beneath was the additional information: "Further issues of the Bulletin tell why." Above and below this was nothing but startlingly white blank paper, two solid columns of it up and down the page.

Down in the deep basement of the Bulletin, the big three-deck presses, two of which had been standing idle since the last Presidential election, were pounding out copies by the thousand, while grimy pressmen, blackened with ink, perspired most happily.

By five o'clock, men and even girls, pouring from their offices, and laborers coming from work, had all heard of it, and on the street the bold defiance created first a gasp and then a smile. Another attempt to dislodge Sam Stone was, in the light of previous efforts, a laughable thing to contemplate; and yet it was interesting.

In the office of the Bulletin it was a gleeful occasion. Nonchalant reporters sat down with that amazing front page spread out before them, studied the brutal face of Stone and chuckled cynically. Lean Doc Miller, "assistant city editor," or rather head copy reader, lit one cigarette from the stub of another and observed, to nobody in particular but to everybody in general:

"I can see where we all contribute for a beautiful Gates Ajar floral piece for one Robert Burnit, whereupon, fat "Bugs" Roach, "handling copy" across the table from him, inquired:

"Do you suppose the new boss really has this much nerve, or is he just a ——fool?"

"Stone won't do a thing to *him!*" ingratiatingly observed a "cub" reporter, laying down twelve pages of "copy" about a man who had almost been burglarized.

"Look here, you Greenleaf Whittier Squiggs," said Doc Miller most savagely, not because he had any particular grudge against the unfortunately named G. W., but because of discipline and the custom with "cubs," "the next time you're sent out on a twenty-minute assignment like this, remember the number of the Bulletin, 427 Grand Street. The telephone is Central 2051, and don't forget to report the same day. Did you get the man's name? Uh-huh. His address? Uh-huh. Well, we don't want the item."

Slow and phlegmatic Jim Brown, who had been city editor on the Bulletin almost since it was the Bulletin under half a dozen changes of ownership and nearly a score of managing editors, sauntered over into Jolter's room with a copy of the paper in his hand, and a long, black stogie held by some miracle in the corner of his mouth, where it would be quite out of the road of conversation.

"Pretty good stuff," he drawled, indicating the remarkable first page.

"The greatest circus act that was ever pulled off in the newspaper business," asserted Jolter. "It will quadruple the circulation of the Bulletin in a week."

"Make or break," assented the city editor, "with the odds in favor of the break."

A slenderly-built young man, whose red face needed a shave and whose clothes, though wrinkled and unbrushed, shrieked of quality, came stumbling up the stairs in such hot haste as was possible in his condition, and without ceremony or announcement burst into the room where Bobby Burnit, with that day's issue of the Bulletin spread out before him, was trying earnestly to get a professional idea of the proper contents of a newspaper.

"Great goods, old man!" said the stranger. "I want to congratulate you on your lovely nerve," and seizing Bobby's hand he shook it violently.

"Thanks," said Bobby, not quite sure whether to be amused or resentful. "Who are you?"

"I'm Dillingham," announced the red-faced young man with a cheerful smile.

Bobby was about to insist upon further information, when Mr. Jolter came in to introduce Brown, who had not yet met Mr. Burnit.

"Dill," drawled Brown, with a twinkle in his eye, "how much money have you?"

"Money to burn; money in every pocket," asserted Mr. Dillingham; "money to last forever," and he jammed both hands in his trousers' pockets.

It was an astounding surprise to Mr. Dillingham, after groping in those pockets, to find that he only brought up a dollar bill in his left hand and forty-five cents in silver in his right. He was still contemplating in awed silence this perplexing fact when Brown handed him a five-dollar bill.

"Now, you run right out and get stewed to the eyebrows again," directed Brown. "Get properly pickled and have it over with, then show up here in the morning with a headache and get to work. We want you to take charge of the Sam Stone exposé, and in to-morrow's Bulletin we want the star introduction of your life."

"Do you mean to say you're going to trust the whole conduct of this campaign to that chap?" asked Bobby, frowning, when Dillingham had gone.

"This is his third day, so Dill's safe for to-morrow morning," Brown hastened to assure him. "He'll be up here early, so penitent that he'll be incased in a blue fog."

Bobby sighed and gave it up. This was a new world.

Over in his dingy little office, up a dingy flight of stairs, Sam Stone sat at his bare and empty old desk, looking contemplatively out of the window, when Frank Sharpe—Sharpe of the gas company, and of many other worse than dubious Stone enterprises—came nervously bustling in with a copy of the Bulletin in his hand.

"Have you seen this?" he shrilled.

"Heard about it," grunted Stone.

"But what do you think of it?" demanded Sharpe indignantly, and spread the paper out on the desk before the Boss, thumping it violently with his knuckles.

"It's a Swell Likeness," He Quietly Conceded

Stone studied it well, without the slightest change of expression upon his heavy features.

"It's a swell likeness," he quietly conceded by and by.

II

CLOSETED with Jolter and Brown, and mapping out with them the dangerous campaign into which they had plunged, Bobby did not leave the offices of the Bulletin until six o'clock. At the curb, just as he was about to step into his waiting machine, his friend "Biff" Bates hailed him with all the enthusiasm possible to an ex-champion middleweight.

"Go to it, Bobby!" said he. "I'm backing you across the board, win, place and show; but let me give you a hot tip right from the stables. You want to be afraid to go home in the dark, or Stone's lobbygows will lean on you with a section of plumbing."

"I've thought of that, Biff," laughed Bobby, "and I think I'll organize a band of murderers of my own."

Johnson, whom Bobby had quite forgotten in the stress of the day, joined them at this moment. Thirty years as head bookkeeper and confidential adviser in old John Burnit's merchandise establishment had not fitted lean Johnson for the less dignified and more flurried work of a newspaper office, even in the business department, and he was looking very much fagged.

"Well, Johnson, what do you think of my first issue of the Bulletin?" asked Bobby pleasantly.

Johnson looked genuinely distressed

"To tell you the truth, Mr. Burnit," said he, "I have not seen it. I never in all my life saw a place where there were so many interruptions to work. If we could only be back in your father's store, sir."

"We'll be back there before we quit," said Bobby confidently, "or I'll be in the incurable ward."

"I hope so, sir," said Johnson dismally, and strode across the street to catch his car; but he came back hastily to add: "I meant about the store; not about the asylum."

Biff Bates laughed as he clambered into the tonneau with Bobby.

"If you'd make a billion dollars, Bobby, but didn't get back your father's business that Silas Trimmer snaked away from you, Johnson would think you'd overlooked the one best bet."

"So would I," said Bobby soberly, and he had but very little more to say until the chauffeur stopped at Bobby's own door, where puffy old Applerod, who had been next to Johnson in his usefulness to old John Burnit, stood nervously awaiting him on the steps.

"Terrible, sir! Terrible!" spluttered Applerod the moment he caught sight of Bobby. "This open defiance of Mr. Stone will put entirely out of existence what little there is left of the Brightlight Electric Company."

"Cheer up, Applerod, for death must come to us all," encouraged Bobby. "Such shreds and fragments of the Brightlight as there are left would have been wiped out anyhow; and frankly, if you must have it, I put you in there as general manager, when I shifted Johnson to the Bulletin this morning, because there was nothing to manage."

Applerod threw up his hands in dismay

"And there will be less. Oh, Mr Burnit, if your father were only here!"

Bobby, whose suavity Applerod had never before seen ruffled, turned upon him angrily.

"I'm tired hearing about my father, Applerod," he declared. "I revere the Governor's memory too much to want to be made angry by the mention of his name. Hereafter, kindly catch the idea, if you can, that I am my own man and must work out my own salvation; and I propose to do it! Biff, you don't mind if I put off seeing you until to-morrow? I have a dinner engagement and very little time to dress."

"His own man," said Applerod sorrowfully when Bobby had left them. "John Burnit would be half crazy if he could know what a botch his son is making of things. I don't see how a man could let himself be cheated four times in business."

"I can tell you," retorted Biff. "All his old man ever did for him was to stuff his pockets with kale, and let him grow up into the sort of clubs where one sport says: 'I'm going to walk down to the corner.' Says the other sport: 'I'll bet you see more red-headed girls on the way down than you do on the way back.' Says the first sport: 'You're on for a hundred.' He goes down to the corner and he comes back. 'How about the red-headed girls?' asks the second sport. 'I lose,' says the first sport; 'here's your hundred.' Now, when Bobby is left real money, he starts in to play the same open-face game, and when one of these business wolves tells him anything Bobby don't stop to figure whether the mut means what he says, or means something else that sounds like the same thing. Now, if Bobby was a simp they'd sting him in so many places that he'd be swelled all over, like an exhibition cream puff, but he ain't a simp. It took him four times to learn that he can't take a man's word in business. That's all he needed. Bobby's awake now, and more than that he's mad, and if I hear you make another crack that he ain't about all the candy I'll sick old Johnson on you," and with this dire threat Biff wheeled, leaving Mr. Applerod speechless with red-faced indignation.

It was just a quiet family dinner that Bobby attended that night at the Ellistons', with Uncle Dan and Aunt Constance Elliston at the head and foot of the table, and across from him the smiling face of Agnes, his trustee by a whim of John Burnit's will. He was so good to look at that Agnes was content to just watch him, but Aunt Constance noted his abstraction and chided him upon it

"Really, Bobby," said she, "since you have gone into business you're ruined socially."

"Frankly, I don't mind," he replied, smiling. "I'd rather be ruined socially than financially. In spite of certain disagreeable features of it, I like the struggle."

"You're starting a stiff one now," observed Uncle Dan dryly. "Beginning an open fight against Sam Stone is a good deal like being suspended over Hades by a single hair—amidst a shower of Roman candles."

"That's putting it about right, I guess," admitted Bobby; "but I'm relying on the fact that the public at heart is decent."

"Do you remember, Bobby, what Commodore Vanderbilt said about the public?" retorted Uncle Dan. "They're decent, all right, but they won't stick together in any aggressive movement short of gunpowder. In the mean time, Stone has more entrenchments than even you can dream. For instance, I should not wonder but that within a very short time I shall be forced to try my influence with you in his behalf."

"How?" asked Bobby incredulously.

"Sam Stone"

"Well, I am trying to get a spur track from the X. Y. Z. Railroad to my factory on Spindle Street. The X. Y. Z. is perfectly willing to put in the track, and I'm trying to have the city council grant us a permit. Now, who is the city council?"

"Stone," Bobby was compelled to admit.

"Of course. I have already arranged to pay quite a sum of money to the capable and honest city councilman of that ward. The capable and honest councilman will go to Stone and give up about three-fourths of what I pay him. Then Stone will pass the word out to the other councilmen that he's for Alderman Holdup's spur track permit, and I get it. Very simple arrangement, and satisfactory, but, if they do not shove that measure through at their meeting to-morrow night, before Stone finds out any possible connection between you and me, the price of it will not be money. I'll be sent to you."

"I see," said Bobby in dismay. "In other words, it will be put flatly up to me; I'll either have to quit my attacks on Stone, or be directly responsible for your losing your valuable spur track."

"Exactly," said Uncle Dan.

Bobby drew a long breath.

"I'm very much afraid, Mr. Elliston, that you will have to do without your spur."

Uncle Dan's eyes twinkled.

"I'm willing," said he. "I have a good offer to sell the factory anyhow, and I think I'll dispose of it. I have been very frank with you about this, so that you will know exactly what to expect when other people come at you. You will be beset as you never were before."

"I have been looking for an injunction, myself."

"You will have no injunction, for Stone scarcely dares go publicly into his own courts," said Uncle Dan, with a pretty thorough knowledge, gained through experience, of the methods of the "Stone gang"; "though he might even use that as a last resort. That will be after intimidation fails, for it is quite seriously probable that they will hire somebody to beat you into insensibility. If that don't teach you the proper lesson, they will probably kill you."

Agnes looked up apprehensively, but catching Bobby's smile took this latter phase of the matter as a joke. Bobby himself was not deeply impressed with it, but before he went away that night Uncle Dan took him aside and urged upon him the seriousness of the matter.

"I'll fight them with their own weapons, then," declared Bobby. "I'll organize a counter band of thugs, and I'll block every move they make with one of the same sort. Somehow or other I think I shall win."

"Of course you will win," said Agnes confidently, overhearing this last phrase; and with that most prized of all encouragement, the faith of the one woman in his prowess, Bobby, for that night at least, felt quite contemptuous of the grilling fight to come.

III

BOBBY'S second issue of the Bulletin contained on the front page a three-column picture of Sam Stone, with the same caption, together with a full-page article, written by Dillingham from data secured by himself and the others who were put upon the "story." This set forth the main iniquities of Sam Stone and his crew of municipal grafters. In the third day's issue the picture was reduced to two columns, occupying the left-hand upper corner of the front page, where Bobby ordered it to remain permanently as the slogan of the Bulletin; and now Dillingham began his long series of articles, taking up point by point the ramifications of Stone's machine, and coming closer and closer daily to people who would much rather have been left entirely out of the picture.

It was upon this third day that Bobby, becoming apprehensive merely because nothing had happened, received a visit from Frank Sharpe. Mr. Sharpe, president of the great Consolidated Illuminating and Power Company, was as nattily dressed as ever, and presented himself as pleasantly as a summer breeze across fields of clover.

"I came in to see you about merging the Brightlight Electric Company with the Consolidated, Mr. Burnit," said Mr. Sharpe in a chatty tone, laying his hat, cane and gloves upon Bobby's desk and seating himself comfortably.

From his face there was no doubt in Mr. Sharpe's mind that this was a mere matter of an interview with a satisfactory termination, for Mr. Sharpe had done business with Bobby before, when he had sold him the controlling interest in the Brightlight Electric Company, which he and Stone had afterward quite cheerfully wrecked; but something had happened to Bobby in the mean time.

"When I get ready for a merger of the Brightlight with the Consolidated I'll tell you about it; and also I'll tell you the terms," Bobby advised him with a snap, and for the first time Mr. Sharpe noted what a good jaw Bobby had.

"I should think," hesitated Sharpe, "that in the present condition of the Brightlight almost any terms would be attractive to you. You have no private consumers now, and your contract for city lighting, which you cannot evade except by bankruptcy, is losing you money."

"If that were news to me it would be quite startling," responded Bobby, "but you see, Mr. Sharpe, I am quite well acquainted with the facts myself. Also, I have a strong suspicion that you tampered with my plant; that your hired agents cut my wires, ruined my dynamos and destroyed the efficiency of my service generally."

"You will find it very difficult to prove that, Mr. Burnit," said Sharpe, with a sternness which could not quite conceal a lurking smile.

"I'm beginning to like difficulty," retorted Bobby. "I do not mind telling you that I was never angry before in my life, and I'm surprised to find myself enjoying the sensation."

Bobby was still more astonished to find himself laying his fist tensely upon his desk. The lurking smile was now gone entirely from Mr. Sharpe's face.

"I must admit, Mr. Burnit, that your affairs have turned out rather unfortunately," he said, "but I think that they might be remedied for you a bit, perhaps. Suppose you go and see Stone."

"I do not care to see Mr. Stone," said Bobby.

"But he wants to see you," persisted Sharpe. "In fact, he told me so this morning. I'm quite sure you would find it to your advantage to drop over there."

"I shall never enter Mr. Stone's office until he has vacated it for good," said Bobby; "then I might be induced to come over and break up the furniture. If Stone wants to see me I'm keeping fairly regular office hours here."

"It is not Mr. Stone's habit to go to see other people," bluffed Sharpe, growing somewhat nervous; for it was one of Stone's traits not to forgive the failure of a mission. He had no use for extenuating circumstances. He never looked at anything in this world but results.

Bobby took down the receiver of his house telephone.

"I'd like to speak to Mr. Jolter, please," said he.

Sharpe rose to go.

"Just wait a moment, Mr. Sharpe," said Bobby peremptorily, and Sharpe stopped. "Jolter," he directed crisply, turning again to the 'phone, "kindly step into my office, will you?"

A moment later, while Sharpe stood wondering, Jolter came in, and grinned as he noted Bobby's visitor.

"Mr. Jolter," asked Bobby, "have we a good portrait of Mr. Sharpe?"

Jolter, still grinning, stated that they had.

"Have a three-column half-tone made of it for this evening's Bulletin."

Sharpe fairly spluttered.

"Mr. Burnit, if you print my picture in the Bulletin connected with anything derogatory, I'll—I'll ——"

Bobby waited politely for a moment.

"Go ahead, Mr. Sharpe," said he. "I'm interested to know just what you will do, because we're going to print the picture, connected with something quite derogatory. Now finish your threat."

Sharpe gazed at him a moment, speechless with rage, and then stamped from the office.

Jolter, quietly chuckling, turned to Bobby.

"I guess you'll do," he commented. "If you last long enough you'll win."

"Thanks," said Bobby dryly, and then he smiled. "Say, Jolter," he added, "it's bully fun being mad. I'm just beginning to realize what I have been missing all these years. Go ahead with Sharpe's picture and print anything you please about him. I guess you can secure enough material without going out of the office, and if you can't I'll supply you with some."

Jolter looked at his watch and hurried for the door. Minutes were precious if he wanted to get that Sharpe cut made in time for the afternoon edition. At the door, however, he turned a bit anxiously.

"I suppose you carry a gun, don't you, Mr. Burnit?" he inquired.

"By no means," said Bobby. "Never owned one."

"I'd advise you to get a good one at once," and Jolter hurried away.

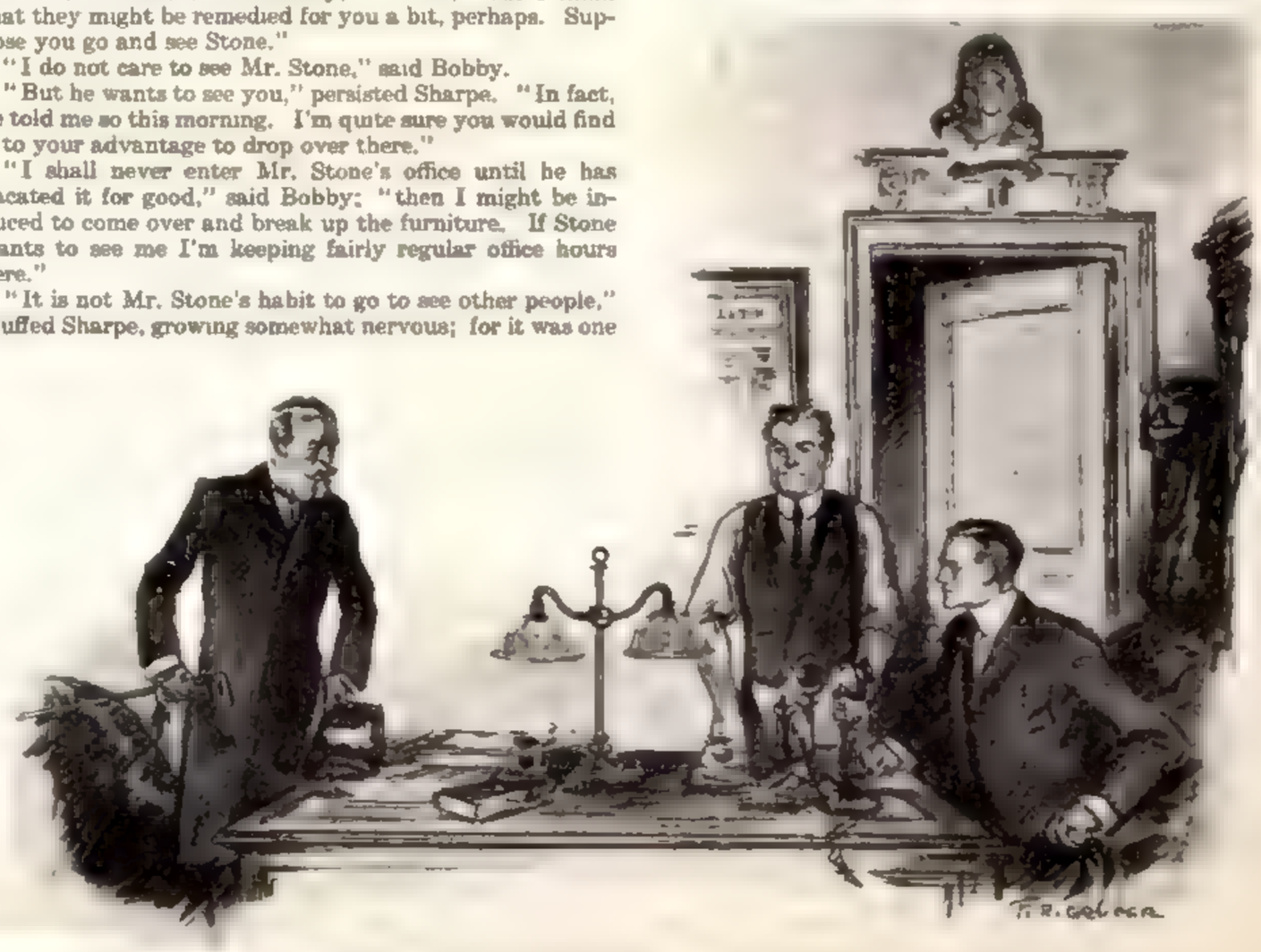
That evening's edition of the Bulletin contained a beautiful half-tone of Mr. Sharpe. Above it was printed: "The Bulletin's Rogues' Gallery," and beneath was the caption: "Hadn't this man better go, too?"

At four o'clock Mr. Brown came in, and Mr. Brown was grinning. In the last three days a grin had become the trade-mark of the office, for the staff of the Bulletin was enjoying itself as never before in all its history.

"Stone's in my office," said Brown. "Wants to see you."

Bobby was interestedly leafing over the pages of the Bulletin. He looked leisurely at his watch and yawned.

(Continued on Page 29)



"We're Going to Print the Picture, Connected with Something Quite Derogatory. Now Finish Your Threat"

THE SATURDAY EVENING POST

FOUNDED A: D: 1728

PUBLISHED EVERY SATURDAY BY

THE CURTIS PUBLISHING COMPANY

421 TO 427 ARCH STREET

GEORGE HORACE LORIMER, EDITOR

By Subscription $1 50 the Year. Five Cents the Copy of All Newsdealers.
To Canada—By Subscription $2.25 the Year. Single copies, five cents.
Foreign Subscriptions. For Countries in the Postal Union. Single Subscriptions, $3.75. Remittances to be Made by International Postal Money Order

PHILADELPHIA, AUGUST 29, 1908

The Goat and Mr. Newrich

HOW much of his income should a man give his wife? Generally speaking, if he has little income he should give her much of it, for she will take best care of it; if he has much income he should give her little of it, lest she make him join the lodge.

Nearly everybody, at one time or another, joins a lodge—well knowing that he will suffer various humiliating and painful experiences; knowing also that, once he is in, he can enjoy the humiliating and painful experiences of other candidates.

Ever since real history began to be written, by dramatists and novelists, society has presented one standing phenomenon—that of Newrich, his toilfully-won money in hand, cheered on by mamma and the girls, marching patiently up to Oldrich to get properly kicked.

To the superficial this is surprising. They argue that if a man has worked half a lifetime to amass a fortune he ought to lay it out in some manner more agreeable than getting himself insulted. Perhaps he ought; but, in that case, the lodge would die out. Newrich is, in fact, simply submitting to the inevitable initiation ceremony. Oldrich himself—or his father for him—had to work his way in, enduring the due rebuffs and snubs until he achieved the third degree, and became eligible to pass upon other candidates and receive them with the initiatory boot.

The lodge harasses the candidate, yet but for him it would presently expire; it really subsists upon him. In the same way, Society badgers poor Newrich; but obviously it couldn't at all continue without him. The Newrich women-folk, with their deeper social instinct, perfectly understand this, and firmly lead the beloved, trembling candidate up to the goat—if he gives them money enough.

Taking it Out in Trade

SINCE 1895 the balance of trade in our favor has amounted to almost six and one-half billion dollars. Declared value of all goods, including silver, that we have sold abroad has exceeded declared value of all the goods we have bought abroad by 6413 million dollars. Allowing for overvaluation of exports and undervaluation of imports there is still, on the face of the returns, an enormous balance in our favor.

But almost every dollar of that balance we have "taken out in trade" in one way or another—in ocean freights, interest and what-not. The world has actually paid us in the thirteen years just 308 million dollars in money, or less than five per cent. of what it theoretically owed us; and instead of Europe being in debt to us we, no doubt, are now in debt to Europe.

The 308 millions is the net imports of gold since 1895—gold, of course, being the only money recognized in international settlements. Remembering the large borrowings of last year and such items as the Pennsylvania Railroad's fifty-million-dollar French loan, it seems likely that the 308 millions was mostly borrowed money; and that the whole foreign trade, exclusive of borrowings, simply cancels itself; that whatever we sell abroad we "take out in trade."

During the thirteen years, while we have piled up a theoretical balance of six and one-half billions, the stock of gold money in the United States has not increased in excess of the output of the gold mines in this country.

A balance of trade means very little. It is sometimes spoken of as though, by selling Europe breadstuffs and cotton and buying as little of her manufactures as possible, we could compel her to pay us a great deal of actual money. But, in fact, we do no such thing. Taking it by and large, the world trades with us only as much as we trade with it. If all the items were known our foreign trade account would just about balance.

When We Learn to Fly

COUNT ZEPPELIN, or another, will construct a good airship.

There is really no trouble about that nowadays. Man is sufficiently equipped to cope with Nature, so that taking any new trick of the old lady is merely the matter of a little patience and experimenting. Navigating the empyrean and possessing the north pole are delayed only while we put on a new tire. Desiring any natural property, the world, one might say, has simply to drop a post-card, prescribing where the goods are to be delivered and calmly await results.

The real trouble will begin when the good airship is constructed—endless contention about its franchises, speed limitations, freight rates, block signals; whether Government should own or regulate; who shall enjoin it and under what circumstances; boundless tribulation over wages and open shop; lawsuits by property owners because airship cuts off sunlight; lawsuits by airship claiming right of eminent domain to sunlight; loud warning by doctors to beware of fatal airship draft, and by other doctors to sleep in airship draft; impassioned debate of its effect upon marriage, race-suicide, religion, the liquor habit and poultry; Germany and France zealously bankrupting themselves to get more airships than England; England raising the income tax to fifteen shillings on the pound to keep ahead.

It isn't at all with Nature that there is any real trouble nowadays.

Ignorance in the Nutmeg State

MR. HORACE TAFT, the press reports, has uttered the following judgment of his fellow-citizens of the Nutmeg State: "If a crowd of rascals should steal the whole capitol, half the Connecticut backwoods towns wouldn't know about it, and, if they did know, they would keep right on plowing just the same." The dispatch adds: "Leaders of the Republican organization say Mr. Taft's hot words cannot be dangerous to his Brother Bill because the State is too solidly Republican."

Naturally, let us further add, immovable allegiance to party and immutable indifference to grand larceny go together; both flower from the same stalk. A constituency which can be absolutely depended upon, under all circumstances, for a safe majority is just the one in which sequestration of public property may be undertaken with brightest promise of success. In solid old Pennsylvania, for example, they took the whole capitol twice over.

Frenzied Prosperity

THE outlook in business and politics is not entirely clear.

Those signs to which men commonly refer in attempting to forecast the future point upward. Mr. Taft's election, no doubt, is desired by many of the men who are in an initiative position, and his prospects are commonly counted among the "bull points."

On the other hand, Mr. Lawson, Boston's celebrated back-action prophet, has been assuring all who would listen that stocks are bound to go up, and Mr. Taft is bound to be elected. Which, of course, raises a presumption that stocks will fall and the Republicans be defeated.

But we believe the country's condition is intrinsically so healthy that the fall in stocks and the election of Mr. Bryan would have no important reactionary effect. We should feel cheerful even if Mr. Lawson declared, under oath, that the country was upon the threshold of matchless prosperity.

Noisy Men and Men Who Work

CROP pests are one of the hardest problems. This year it is black rust in the Dakotas—cutting down production, the reports say, by a good many million bushels. Last year it was green bugs in the winter-wheat fields. A year or so before that boll-wevil ravaged cotton. Scab, scale, rot and canker prey upon fruit trees and vines. The average annual loss thereby is great; and, if an old pest is driven out, a new one appears.

A faithful army, nevertheless, fights the pests, and does, little by little, with small sound, gain upon them. In forty years, taking a five-year average, the yield per acre of all grains in the United States has increased—say, ten per cent. This slow gain is indubitably good; a firm footstep in advance; mankind is solidly richer therefor. Hundreds of patient men, silently plodding through fields, plying in laboratories, observing, studying, trying, will yet beat black rust and the green bug, while other hundreds laboriously tread down scale and rot.

The term of life has been prolonged; a ghostly squad of human scourges patiently stamped out. Even tuberculosis begins to yield ground; they talk hopefully of a cancer serum. These things, wrought by numberless men, with little noise—mostly nameless, in fact—are the real material gains.

Meanwhile, a few men make sound. If you hear a man described as a signal promoter of the country's material advancement, look him up carefully and see whether he has really done anything more than grab a big piece of property and make a noise which disturbed the people in their work.

A New Hat in the Ring

AUSTRIA, the other day, completed arrangements to take over a good part of the railroads of that country which remain in private hands.

They seem to find Government ownership satisfactory over there. A year or two ago it was supposed that subject would be considerably discussed in this campaign. Apparently, it is not to be mentioned—to the loss, in interest, of the campaign.

A sub-committee of the Monetary Commission appointed under the Aldrich-Vreeland currency bill has sailed for Europe "to secure all available historical and statistical data with reference to the currency and banking experience of Great Britain, Germany and France." To see how other people, whose position is like ours, deal with the large economic problems that confront us, and what results they get, is surely most reasonable.

Government ownership of railroads is very largely an economic problem. The experience of Germany, France, Austria, Italy in that line is as properly interesting to us as is their experience in banking. Only stupidity imagines that we, or they, have said the last word on either subject. We wish to see the subject discussed, not because we want Government ownership, but because we want light; because discussion of it would be more profitable to the country than discussing whether John Smith may contribute to the campaign fund by his personal check or by the check of the J. Smith Bill-Posting Corporation.

Extravagance in the Rural Districts

THE average cost of carrying a ton of goods a mile by lake is eight-tenths of a mill, and by rail seven and six-tenths mills. The average cost of carrying a ton of goods a mile on first-class roads is said to be seven cents, and on common country roads twenty-five cents.

The latest report (made by the Department of Agriculture for 1904) shows 2,151,570 miles of public roads in the United States, of which 7.14 per cent. were improved. In old, populous and rich States, such as New York, Pennsylvania, Illinois, Michigan, improvements were reported on less than ten per cent. of the public roads.

Almost every pound of freight originating upon or destined to a farm moves over a country road; most of it over a "common" country road, at a cost some three times as high as it would be if the road were first-class. Sometimes the goods actually pay a heavier toll for a few miles' carriage between railroad station and farm than for all the remainder of the journey.

The railroads themselves spend millions to clip off one or two per cent. from operating expenses, here and there; and, if farmers were presented with a feasible scheme for reducing their railroad freights even one-quarter, they would feel that there, indeed, was a burning issue.

Road improvement receives much more attention than formerly, but much less than it deserves.

The Street of Three Stories

THE skyscraper trouble grows acute in New York.

The trouble is that a one-story street will not accommodate the occupants of twenty-story buildings. A committee suggests that, in certain hours, all wheeled traffic be prohibited south of Chambers Street, giving pedestrians unobstructed use of the roadway. Chicago, confronted by somewhat the same difficulty, has proposed elevated sidewalks and other devices. The natural and obvious remedy, however, is a three-story street—subways and elevated roads already crudely tending to that end. Disregarding mere sentiment and conforming to hard fact, the lowest street level should be free; for the second, or middle level, a small toll should be charged; and for the upper or sunlight deck a round tax. This would, as nearly as possible, realize the ideal of equality by giving everybody just the street accommodation that he was able to pay for.

We suppose there would be pavilions on the upper deck in which to meet and consider the state of the poor, and some chutes through which, when the clamor in the cellarage became distressful, the proceeds of a charity ball could be dropped.

WHO'S WHO—AND WHY

Serious and Frivolous Facts About the Great and the Near Great

The Man Who Makes Murphy

NOT having anything to say, Mr Charles F. Murphy, boss of Tammany Hall, says nothing; wherein Mr Murphy puts the fifteen ball in the corner pocket, for most men who have nothing to say, say it, and the rare person who has something to say usually says it so often the rest of us wish there might be a law passed making it obligatory for all persons to write it down and hand it around.

Long study and observation conduce to the opinion that Mr. Murphy's active vocabulary is limited to those two near-words, "Uh-huh!" and "Ah-hah!" and to the brief sentence: "We'll win," which he uses only in campaigns. Mr. Murphy carefully conceals all his other language. Once upon a time somebody told him to look wise and say nothing, and he has been trying it out ever since. He gives a sort of an open-faced imitation of wisdom, and he says nothing the best you ever saw.

Being afflicted with this congestion of conversation, either from policy or paucity, it is Mr. Murphy's habit to have on his staff a few gentlemen who collaborated on writing the libretto of the dictionary, to do the talking for him. At times it has been necessary to have a great deal of talking done, if there should be any inquiries along that line, and, at other times, all the talking in the universe would not save the game. Still, Mr. Murphy has a few good, handy, all-around talkers, and, when he makes signs to them, they interpret his signs to the listening world. For example, if Mr. Murphy holds up a long index finger, signifying Pat McCarren, and swings his patent-leather shoe viciously through the air, that means, as translated by one of the orators: "Gentlemen of the convention: In behalf of the free institutions of the United States, in behalf of the Grand Old Democracy of New York, in behalf of the glorious past and still more glorious future of gee-lorious old Tammany Hall, in support of all that we hold dear, of all the ties that bind us to Manhattan Isle, while looking at the rising sun that gilds the tops of our busy marts of trade and while gazing at the magnificence of the setting sun that goes down on a day fruitful with our best endeavor, it becomes my duty to announce that Mr. Long Pat McCarren is no better than he ought to be, and I move he be thrun into d' street."

When the Honorable Bourke was Not Clubby

MURPHY used to have the Honorable Bourke Cockran to do this sort of thing, and the Honorable Bourke was always fine at it, for he has a brogue, having been exposed to it on the Ould Sod and never able quite to remove the traces. However, the Honorable Bourke committed the terrible de trop faux pas, as Mike Padden would say, of beating Mr. Murphy to the receivership of one of the numerous unassailable financial institutions in New York that was assailed and succumbed last fall. This was not clubby of the Honorable Bourke. He should have known that Murphy wanted the job, for his own use, but Cockran fatuously put his father-in-law in it, and Murphy never forgave him, never. Indeed he did not. He eliminated the Honorable Bourke as Grand Sachem of Tammany Hall and he refused to let him go back to Congress. Take that, Mr. Bourke Cockran, for butting in on the boss's preserves!

Well, that left Silver-Tongued Tom Grady, but Tom's silver tongue is a bit pewtery now, and Murphy had to have some one else. So he picked out Danny Colahan, Daniel Finnerty Colahan, or some such middle name, and he made Danny Grand Sachem, which entitled Danny to wear the big hat on the Fourth of July and to take the boss to luncheon at Delmonico's at frequent intervals. After Mr. Murphy first broke out on what we may call our upper crust in the metropolis, and began lunching up near Forty-fourth Street instead of down on Fourteenth, he had with him, usually, that immaculate Tammany man, J. Sargeant Cram. For many years Mr. Cram was the only man who could speak with an English accent in Tammany Hall and get away with it. If anybody else had tried it there would probably have been some work for the internes at Bellevue Hospital.

But Cram could do it, and he wore spats, too, and taught Murphy to wear them. Murphy thought they were ear-muffs first off, but Cram put him right, and now he wears them quite regularly.

In brief, J. Sargeant Cram was Murphy's social mentor. He it was who took Murphy to swell restaurants and told him he mustn't order tripe, but should cut in on the more refined things.

All this time Danny was warily watching events. He is shrewd, and his knowledge of New York politics is comprehensive and accurate. At times, when J. Sargeant or the Honorable Pfingge Conners were not taking all of Murphy's time, Danny would slip in and tell Murphy news he ought to know. Presently, it came to such a pass that, if Murphy wanted something done, he would detail Danny, and Danny would go out and do it. Danny had advice on ticklish points, and Murphy soon found it was good advice. One by one, the board of advisers began to drop away. When they brought in advice Murphy would make a sign that Danny had told him to do that already or had told him not to do it.

In fact, Danny seemed to have a way of reading the future and of discounting all the other advisers. The board disintegrated. Even J. Sargeant fell by the wayside. Instead of tooling down each day and taking the boss to luncheon, he found that Danny had slid in ahead of him, and, if he broke in at all, it was merely for special purposes and not because he was of any particular moment as host or entertainer.

It wasn't long until the whole thing revolved around Colahan. Murphy was leader of Tammany Hall, to be sure, but Colahan was practically leader of Murphy. Colahan advised about the politics, about the legal end of it, and, whenever Murphy had a fight he wanted made, he sent for Colahan and left the other war-horses switching away the flies in the anteroom. It was Colahan who pulled Murphy out in the all-night fight at the State Committee meeting in the spring when Murphy put Pat McCarren under the pile-driver for the last time. In the old days Cockran or Grady or some other would have led the forces. This time it was Colahan, and it was Colahan who was at the right hand of Murphy during the Denver convention, and Colahan's advice was followed.

On Tap Whenever Wanted

COLAHAN is forty years old. He is a big, broad-shouldered, heavily-set man, with a smooth-shaven face, clear, gray eyes, and a chin that is square enough to make a prospective opponent rub his own and wonder if it is worth while to tackle him. He was a ball-player when he was a young chap, and, for the matter of that, still keeps up his athletics by boxing a few rounds, now and then, with Mike Donovan, who boxes with the President, or some other heavyweight.

There is always an inside circle of men around the leader of Tammany Hall, and it is as hard for an outsider to get in as it would be to break into the Sub-Treasury. Some people try it with an axe and some with an emollient. Colahan used a judicious combination of the two. He was on tap whenever Murphy wanted anything, from a legal opinion to the number of voters in a precinct. From time to time he banged some obstreperous person, who was in his way, over the head, or took a strangle-hold on some other and threw him out into the street. He saw to it that whatever method he used was successful, and he is now where he wanted to be, with his thumb on Murphy and no present intention of lifting it. He is so useful to Murphy that Murphy cannot get along without him, and Murphy is so useful to him he intends to keep where he is.

'Tis Hard to Fool Thim Colahans

Colahan, so far as the records go, never held an office of any importance. He is a lawyer and says he has no ambition to get on the pay-roll. It is not hard to guess what his ambition is. Every leader of Tammany Hall goes by the board, sooner or later. When it comes Murphy's turn Colahan will be there, on the spot, and he will take the job. If he doesn't tire of it, and if he keeps in his present relation to the Hall, there is scarcely any doubt that he will be the next man to control the political destinies of New York City.

Perhaps, that is why Murphy is educating him. Being so sparse of speech, Murphy has plenty of time for thought. He knows he will have to quit, sooner or later. But, whether or not Murphy has Colahan in mind for his successor, the odds are that Colahan will be his successor. That is what Colahan is there for.

You see, 'tis hard to fool thim Colahans.

A Meeting-Place of Heroes

QUARTERMASTER-GENERAL ALESHIRE was the quartermaster on the staff of General James H Wilson, of Delaware, during the war with Spain.

General Wilson's division went to Macon, Georgia, for a time during the campaign, and Aleshire got General Wilson a room at one of the hotels.

"This is odd," said Wilson, as soon as he stepped into the room. "I had this very room when I was in command here during the Civil War."

Soon afterward Senator Bacon came to call on General Wilson. "I have met you here before," said Bacon.

"Yes, I know we have met before," Wilson replied, "but it was not in this place that I can remember."

"My memory is better than yours," the Senator said. "I met you here, in this very room, during your occupation of Macon when I was a prisoner of war."

Then they did something for it.

The Hall of Fame

¶ Governor Charles E. Hughes, of New York, smokes long, thin, domestic cigars.

¶ C. N. Haskell, Governor of Oklahoma, is another of the looks-like-Bryan folks.

¶ Senator Ankeny, of Washington, runs a chain of banks that encircles the most fertile part of the State.

¶ Senator A. J. Beveridge, of Indiana, has recently been elected chief of the Rocky Boy band of wandering Indians.

¶ The Honorable Bill Sapp is the only Kansan who wears a plug hat three hundred and sixty-five days in the year.

¶ Hoke Smith, Governor of Georgia, rides a coal-black steed. At least, that is the way they speak of his horse in Georgia.

¶ Brand Whitlock, the reform mayor of Toledo, intends to make a bold bid for literary immortality. He will soon issue a volume of essays.

¶ David R. Francis, of St. Louis, former Governor of Missouri and ex-president of the St. Louis Fair, is an enthusiast on Robert Burns manuscripts.

¶ When Elliot Woods, superintendent of the Capitol, has nothing else to do he analyzes the dust the suction cleaners get out of the Senate and House carpets and counts the different kinds of germs.

¶ Rear-Admiral A. T. Mahan, the great naval authority, is so susceptible to sea-sickness that he never made a voyage when in active service without being prostrated practically all the time he was afloat.

¶ They used to call George E. Foss, Representative from Illinois, who campaigned against Senator A. J. Hopkins for Hopkins' place in the Senate, the laziest man in Congress, but Hopkins has another idea of it.

¶ Colonel Jim Ham Lewis, candidate for the Democratic nomination for Governor in Illinois, famous for his fricasseed hair and scrambled whiskers, has been obliged to reënforce the pristine glory of that hair with a toupee.

¶ Scott C. Bone, editor of the Washington Herald, was an Indianapolis journalist before he came to Washington years ago. He dragged Meredith Nicholson, the novelist, out of a law office and made a reporter of him when he was a city editor out there.

¶ George R. Sheldon, named for treasurer of the Republican National Committee, is the man Governor Odell, of New York, refused to run with when they had it settled to nominate him for Lieutenant-Governor one time when Odell was running for Governor.

Every Owner of

Must, at some time during th
a coating or covering for the wal
the economy, the beauty, the sanitar

Alaba

The Sanitary

will instantly appeal to sound judgment. Please read the following items. There
friends about Alabastine. Alabastine is a powdered alabaster rock specially and s
Alabastine becomes a real part of the wall requiring no glue to make it stick, there
fire proof in its nature and is very efficient in preventing the ignition of any surface.

Office Buildings

The office tinted or decorated with Alabastine can be occupied immediately after the departure of the decorator. In retinting an Alabastined wall the new coat is simply put over the old and the wall is better than before.

This reduces the cost and time of redecorating at least one half and largely removes the elements of mess and confusion always connected with the necessary washing and scraping off of ordinary materials.

Factories

Alabastine is specially suitable for factories, the white reflects light and lights up dark rooms, and the delicate tints modify, and temper the very light rooms that otherwise might be dazzling.

Alabastine's acknowledged sanitary qualities should not be overlooked, promoting as it does the health and well being of the workers. Its durability saves large bills and the ease of recoating counts for much in factory work, while its fireproof nature is a distinct advantage.

Residences—City or Country

As family life is centered in the home, and the decoration of walls is expressive of the culture and taste of the occupants, no wall-covering material, regardless of price, lends itself so completely to the individual taste as Alabastine, and in no material is there the extreme economy. The Alabastined room is beautiful in its evenness of color, durable because of the permanency of its colors, and harmonious because of the soft, velvety effects. It does not scale or rub off, and always remains sweet, pure and wholesome.

Schools

When a school is decorated with the soft Alabastine tints, the pupils unconsciously come to realize and appreciate the vital importance of color harmony. These tints are restful and do not strain or tire the eyes. Alabastine offers a greater range of color combinations and tints, which can be more immediately and easily obtained than any other decorating material. The cleanliness, the purity, and the sanitary properties of Alabastine are always in evidence. The economy of Alabastine should also be taken into consideration.

We invite corr
owners and manag
small buildings and
plain and demonstra
is more durable, b
and economical tha
decoration. It is o
operate with you to
in offering experien
submitting without
color schemes and
any kind of building

Write today—tell us just what your conditions are and
any question that the Alabastined wall means complete sa
mend wall coatings which they honestly believe to have the s
tunity to explain to such dealers just why there is only *one*

366 Grandville Avenue
Grand Rapids, Mich.

The Alabastin

Alabastine Is Sold At Paint, Dru

Every Building

e year, face the question of
s and ceilings. The durability,
y qualities and the convenience of

astine

Wall Coating

e surely is one among them that will interest you. Ask your dealer, ask your cientifically prepared and when simply mixed with cold water is ready to apply. efore it is strictly sanitary and does not scale or rub off. Alabastine is absolutely

espondence from gers of large or l will gladly ex- te why Alabastine eautiful, sanitary n any other wall ur desire to co- the fullest extent ced advice, and in charge complete tencil work for

Apartments and Hotels

In the use of Alabastine, the owners and managers of apartments and hotels will find a material for decorating the walls that combines the essentials of suitability for any room, durability under any conditions, and harmony in color and tint. Besides this, Alabastine is always sanitary. As it is neither pasted nor glued to the walls, there is no lodging place in it, or behind it, for pestiferous insects.

Hospitals

Alabastine, made from alabaster rock, a pure calcium sulphate, is a deodorant and effective antiseptic. It is a perfect germicide, and as it adheres to the wall through its own cementing powers, it does not afford breeding places for disease germs or noxious and poisonous bacilli. Alabastine is used in many of the best hospitals and sanitariums, and for this purpose it has the unqualified endorsement of leading medical men and women in this country and abroad.

Churches

Not alone economy and great durability of Alabastine recommend it as a decorative material for churches, but its peaceful, beautiful tints, and the daintiness of the stencil work, will always give an air of cheerfulness and hospitality. The numerous color combinations possible with Alabastine will not only harmonize with the interior woodwork, but by their use it is possible to reflect the true religious spirit.

Lowers Lighting Expense

It is a well established fact that all wall papers eat up and absorb light, while brush tinted walls, such as produced with the soft velvety Alabastine tints, reflect light, make the rooms cheerful, protect the eyesight, save nerves and tempers and reduce lighting bills.

Alabastine has the widest range of uses. While the artist can get the most delicate pastel effects with Alabastine, making it most desirable for high class residence and theatre decoration, its many other qualities—permanency, economy—well fit it for use on rougher work.

what you are using at present. We can show you beyond tisfaction as well as economy. Dealers sometimes recom- ame advantages as Alabastine. We would like the oppor- Alabastine and why no other material will take its place.

Dept. 274, No. 105 Water Street
New York City.

ne Company

g, Hardware and General Stores.

ALABASTINE
ALABASTINE

YOUR GARDEN

Fertilizers: How to Choose and Use Them

THERE is no mystery about fertilizers. At least, there is no mystery about the principle that underlies their use. It is so simple that (to paraphrase a trifle) even the play-farming man need not err therein.

This principle is that fertilizers are food for plants; they are not food for the land. It is that they nourish plants; they are not to nourish or strengthen or enrich the soil.

Plants must have food to eat and water to drink. Like all other growing things they become hungry and thirsty. And he who wishes the best returns must study to give water and proper food to his corn and tomatoes and peas, just as he studies to give water and proper food to his horse, his cow, his chickens.

To speak of using fertilizers to feed your land is as absurd as it would be to speak of feeding the table when you mean that you feed the hired man. The land is the table from which your plants eat and drink.

As to the application of the principle of fertilizers—well, that is not so easy. The possibilities of application are what Sam Weller would have called "various." But, none the less, the basic principle once grasped, the user of fertilizer cannot long go wrong, even though he may in the beginning make some unavoidable mistakes. The user of fertilizer may have only a single flower-pot in a window or he may have a mighty farm; he may be cultivating a tiny plot in a city back yard, or his wish and care may a few suburban acres bound; in any case, he should know just why fertilizer is used.

An acre of crop actually drinks from the land several hundred tons of water; and this figure has nothing to do with the water that evaporates direct from the soil without passing through the plants. The hunger of plants is appeased when they take plant-food, which, by chemical combination, or action of water, or skill of artificial preparation, has been sufficiently dissolved to be absorbed by them.

Now, to say that fertilizers feed the plants and not the land is not to say that land cannot be improved. For, of course, it can. Much can be done to make a merely ordinary soil approach the admirable condition of being open enough to permit of easy penetration by water and close enough to prevent too rapid a drying out. But land improvement does not come within the province of fertilizer, except when it may do so in a merely indirect way

Plant Foods and Their Purpose

Fertilizers being food for plants, it is of vital importance to find just what food the different plants need and then to find just what fertilizers contain those foods.

The principal plant-foods are three: nitrogen, phosphoric acid and potash.

Some fertilizers contain all of these constituents, in varying proportions; some contain only two; some but one And here is a curious and interesting fact.

Practically every soil, even the poorest, contains in itself all of these vital constituents, and usually in such heavy totals of quantity as to make fertilizers seem tiny indeed by comparison. The upper eight or nine inches of a single acre of soil may, if the soil be a rich one, contain a total of over thirty tons of the three principal plant-food constituents. It is a poor soil that contains less than fifteen tons. The very poorest and most meagre contains over a ton.

Yet a small quantity of these constituents, a mere nothing compared with the quantities present in ordinary soils, works miracles in crops, because of a wonderful provision of Nature, by which the fertility of land is conserved.

For these treasures of plant-food are paid out as grudgingly, as charily as money is paid over the counter of a bank in a time of financial stringency. If the tons and tons of natural fertilizing material were to be paid out at once there would be no reserve, no source of supply for the future. So Nature has seen to it that they are ordinarily in such shape as to be given to the crops a very little at a time In this way they last through the centuries. Even the most richly-laden soils give out their wealth but cautiously under the influence of water seepage, and "weathering," and chemical action.

Thus it is that applied fertilizers are of value. They not only furnish potash, nitrogen and phosphoric acid—these are already in the soil in astounding quantity—but furnish them in such form that the plants can at once assimilate them as food—predigested food, let us say.

Before going further it is well to speak of lime, which is often spoken of as a fertilizer, but isn't one.

Helping the Texture of the Soil

Lime often improves the texture of the soil. And, if land is "sour," as may, perhaps, be shown by a free growth of red sorrel, colloquially known as "sourgrass," lime will sweeten it. Also it is certain that lime makes the plants of farms grow. But this it does because it has the chemical ability to set free, in the soil, plant-food that Nature intended to reserve. It starts a run on the bank, so to speak. Itself, it gives no plant-food. It just draws it out. It sets free phosphoric acid, and even more of potash, but does not, as fertilizers do, furnish anything, and therefore its continued use is injurious.

This fact became known to farmers through practical observation, and hence there arose the ancient saying that "Lime, and lime without manure, will make both land and farmer poor," and the grimly terse: "Lime makes the father rich and the son poor"

At the same time, there are cases in which the reserve plant-food of land is given out in entirely too slow a way, and when, therefore, it is a good thing to rouse it into activity, as one would waken the latent activity of a lazy man.

Fertilizers are used much more in the East than upon the comparatively fresh and strong soils of the West; and the business of selling artificial fertilizers has attained such great importance that most of the States, as a protective measure, have passed laws making it imperative to attach a printed analysis to each bag of material, showing its plant-food constituents and their proportion.

These laws are an important protection: and yet it will not do to trust them implicitly, for some of them are misleading, to say the least. It was long ago that Falstaff sagely remarked on how the world is given to lying, and the makers of fertilizers are not immune.

For some of the guarantees are intentionally ambiguous; others have duplication of statement by pretentious double description of the ingredients; and others, even if not false, give at least a wrong impression. Aim to have a clear and direct statement of analysis from a reliable manufacturer when you buy a commercial fertilizer.

Some fertilizers, honestly claiming excellent constituents in admirable proportions, may be of little value because their plant-food is in unavailable form, like so much of the plant-food in the soil. Nitrogen may be in the fertilizer—but in insoluble organic material. Phosphoric acid may be there—but in insoluble mineral phosphates. The final analysis must be the analysis of experiment and experience.

The making of artificial fertilizers and the tremendous increase in their use will not, of course, tend to do away with the use of barnyard manures. Many an old-fashioned gardener still holds that there is nothing better for flowers or vegetables than a compost heap of manure and sods and leaves, all mixed together and from time to time turned over, and best if a few years old.

Many an old-fashioned gardener also believes that it is better to keep any manure for quite a while before applying, and refuses to adopt the newer idea of carrying it promptly to the field.

There is, however, no conflict of ideas as regards the benefit of keeping manure under cover, and also of preventing its most valuable portions from seeping away.

Many a fine garden (and as we write there comes to mind a garden of particularly striking success) has never had a fertilizer other than manure; and many of the splendid gardens of Europe are similarly fertilized, for commercial fertilizers as yet are not used there so much as in the United States.

However, those who favor commercial fertilizers assert that the manufactured products are not only cleaner and neater but give precisely the best possible mixtures in condensed and desirable form; and there are strong and undeniable objections to the natural fertilizers on æsthetic grounds, especially when any large quantity is to be used in a settled neighborhood. It disfigures a lawn, too, for a time.

Nor must it be forgotten that even now good barnyard fertilizer is not always easy to buy, and that there would be nothing like the necessary amount of this kind of fertilizer available were the use of artificial fertilizers for any reason to be discontinued. The extent to which automobiles and electric cars have taken the place of horses is another reason why even the most earnest advocate of the old-fashioned must see the merits of the new product as well as the old.

But whether you use natural or artificial fertilizer, the reason is the same. You do it to give food to the plants, and the food is nitrogen, phosphoric acid or potash, or all three.

Of the various manures poultry manure is the best, containing as it does large proportions of nitrogen and phosphoric acid. Sheep manure comes next, containing about the same proportion of nitrogen as poultry, but not so much phosphoric acid. Horse manure is likely to be better than that of cows, but much depends upon the condition of the animals and upon their food. It is claimed, too, that the older animals are more desirable as manure furnishers than the young.

On a Vegetarian Diet

If you plow under a green crop, such as clover, for fertilizer, you are doing precisely as with all other kinds of fertilizer: you are giving food to the plants. It may seem, indeed, as if in giving them clover, which is the best of the plowed-under crops, you are giving them a vegetarian diet, but, as a matter of fact, the diet is no more vegetarian than when you feed, say, Chile saltpetre, for the principal point of value, with both clover and Chile saltpetre, is the available nitrogen that they contain.

All clovers, by the way, are not of equal value. The red is the best, the crimson comes next, and the white is of less value. It may be mentioned, too, that it is not only the proportions of plant-food in the various clovers that determine their relative value, but also their effect on the land when they are growing, before being plowed under; the red clover being much prized by agriculturists because of its deep-root system, which lightens and opens up the soil.

In comparing barnyard manure with artificial fertilizer it should be understood that manures not only give plant-food but also help the texture of the soil.

For many centuries the entire subject of fertilizers was but little understood.

The farmer of ancient Asia understood about as much of fertilizer as did the American farmer of the early part of the nineteenth century. Job knew how "to satisfy the desolate and waste ground; and to cause the bud of the tender herb to spring forth." Those who tilled the soil along the Nile knew as much of the fertilizing power of *alluvium* as did the early farmers along the Ohio. Of the Nile husbandman it could be well said, as in Antony and Cleopatra, that "the seedsman upon the slime and ooze scatters his grain, and shortly comes to harvest." Ancient Babylon trusted largely to irrigation, and Herodotus refused to write down the height of the Babylonish stalks of sesame (delightful reminder of the Arabian Nights!) on the ground that the figures would appear to be incredible.

It did not take many centuries of the world's history to learn that on the land

Six months without holes

No matter how hard you are on socks, you won't wear holes in

Manheim Mendless Socks

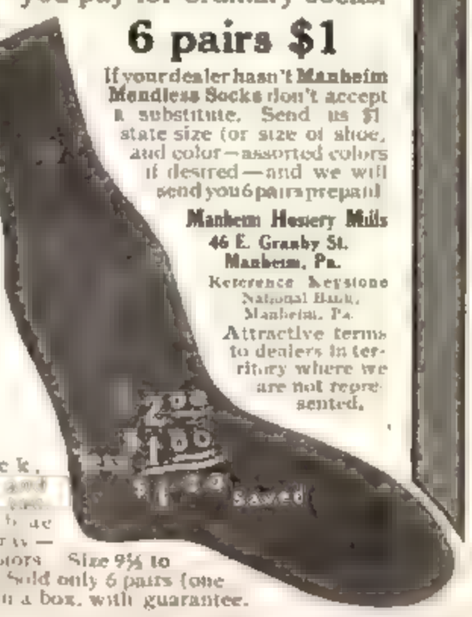
within six months. But suppose you do! A new pair *free* for every pair that needs darning within 6 months.

The price is no more than you pay for ordinary socks.

6 pairs $1

If your dealer hasn't Manheim Mendless Socks don't accept a substitute. Send us $1 state size (or size of shoe, and color—assorted colors if desired—and we will send you 6 pairs prepaid

Manheim Hosiery Mills
46 E. Granby St.
Manheim, Pa.
Reference Keystone National Bank, Manheim, Pa.
Attractive terms to dealers in territory where we are not represented.



Black, [illegible] and gray—fast colors Size 9½ to [illegible] Sold only 6 pairs (one size) in a box, with guarantee.

AGENTS SEND TODAY FOR OUR NEW PROPOSITION

[illegible] Can't be bought in stores. No one [illegible] Positive Treasure Seekers in 3 hours. [illegible] $150. We [illegible] guarantee to show you how to make from $3 to $10 a day Send us your address [illegible] guaranteed. Money [illegible] SAMPLES FREE to workers. WRITE NOW. A postal will do
THOMAS MFG. CO., 230 Home Bldg., Dayton, O.

A New $1 Offer—"KEITH'S"

Our Plan No. 37—$4000

for six months and a copy of my new
Book 76 Plans
[illegible] attractive [illegible] of moderate cost $1000 to $4000 [illegible] monthly [illegible] the [illegible] and a [illegible] on planning and [illegible] Homes [illegible] gives [illegible] of [illegible] cents. $1 50 a year. [illegible] With each $1 order I will also include a copy of my Big Double 56, Number on Bungalows. Send today.
MAX L. KEITH, 676 Lumber Exch., Minneapolis, Minn

Near-Brussels Art-Rugs, $3.50

Sent to your home by express prepaid.

Sizes and Prices	
9 x 6 ft.	$3 50
9 x 7½ ft.	4 00
9 x 9 ft.	4 50
9 x 10 ft.	5 00
9 x 12 ft.	5 50
9 x 15 ft.	6 50

Beautiful and attractive [illegible] Made in one piece [illegible] Sold direct at one profit Money refunded if not satisfactory

New Catalogue showing goods in actual colors sent free.
ORIENTAL IMPORTING CO., 917 Bourse Bldg., Philadelphia.

LOOKING AHEAD?

If so, take advantage of today's opportunities for the merchant, farmer, fruit grower and business man along the Pacific Coast Extension of the

Chicago, Milwaukee & St. Paul Railway

Descriptive Books Free. F. A. Miller, G. P. A., Chicago

The Battle Creek Sanitarium

The world's foremost Health Resort in physiological and dietetic methods. 200 kinds of baths, large indoor and [illegible] [illegible] [illegible] [illegible] recuperate and to fit up permanent health. Beautiful Souvenir Portfolio FREE. Box 75, Battle Creek, Mich.

where battles were fought the vegetables grew to mighty size, that where cattle were pastured or horses were picketed the husbandman considered the millet how it grew, that *alluvium* made the corn grow mighty, that where the wood-ashes of the village were cast the land gave forth abundantly.

From such things, the practical value of blood and bone and wood-ashes and stable refuse became known and applied; and then century after century passed without application of the knowledge along the lines that we have come to know as scientific and commercial.

Ben's Handwriting on the Soil

Franklin, with his insatiable appetite for investigation, turned toward the improvement of soils, and for a time was interested in what is known as land plaster, or gypsum. Finding that his arguments in its favor were unheeded he planted a crop and spread the plaster upon the field—planted it so as to come up in great, green letters, such as you nowadays see spelling out the name of a summer hotel on a hillside or a railway station. And his awed neighbors read, in letters that daily grew higher and higher, above the ungypsumed rest of the field, "This Land is Plastered."

But the trouble with land-plaster is that it isn't really a fertilizer. It produces fine crops, but does it as lime does, by prematurely releasing what is in the soil and without itself putting in anything of value.

Baron Liebig, something over threescore years ago, began earnestly to investigate soils and fertilizers, and knowing, among other things, of the merits of bone, experimented until he found that a bushel of bone-dust, dissolved by a third of its weight of sulphuric acid, and then applied, gives better results than four bushels of bone applied as dust.

Following Liebig's lead, a host of chemists began experimenting, with the result that the sources and operation and crop values of the plant-foods became known.

You don't, as a rule, go to a store and ask for so many pounds of nitrogen, so many pounds of phosphoric acid, so many pounds of phosphate. You will usually purchase some of the many kinds of fertilizer that combine these in the desired proportion. You may, however, wish only one kind, for some special use; and the suburbanite, wending homeward, may pick up a twenty-pound sack of nitrate of soda and scurry on to his train with material enough under his arm to give twofold increase to the greenery of his garden.

Nitrate of soda is one of the important forms in which nitrogen is obtained and supplied. It is a quick-acting fertilizer, and must never be applied before the crop is planted. Only in the very dryest soils is it safe to apply it even as early as when the seed is actually put in. Almost always it should be put on only after the plants have begun to show above the ground, and it should not be used in quantities of more than from one hundred to four hundred pounds an acre, and many hold that it is best to apply it mixed with phosphates or wood-ashes or land plaster. Often it is well not to put it all on at once, but a little at a time as the plants come up. This is especially the case with such crops as beets.

Nitrogen fertilizer of any sort should not be put on when the leaves are wet, for it will at such times "burn" them. It is customary to stir the nitrate in along the sides of the rows of vegetables, rather than directly upon the row.

The Fertilizer that Takes Off Its Coat

What is known as cottonseed meal is another important source of nitrogen, and another highly valuable source is dried blood. Slaughter-house refuse, such as horn and hoof waste, and meat scrap, are extremely valuable for the available nitrogen which they contain, and in dried and pulverized forms are on the market in commercial fertilizers.

Although most of the nitrogen fertilizers act with promptitude there are important differences to consider.

The nitrogens that are salts, like nitrate of soda, which is found in arid parts of South America and has become the most important of this kind of nitrogen fertilizer, begin to act almost instantly. Put it in the soil and—well, though you don't actually see it sizzle, it really does seem to take off its coat and get down to work almost instantly.

But the nitrogen in clover, in dried blood, in cottonseed meal, the nitrogen that is in plant or animal products, cannot be absorbed by the plants till the clover, the dried blood, the cottonseed meal have decayed and by their decay changed organic nitrogen to a nitrate.

Dried blood decays in the soil very swiftly and cottonseed meal almost as fast, so that, although not so rapid as nitrate of soda, they are still quick-acting fertilizers.

In strong contrast to nitrogen, which is so liable to be dissipated and lost by too-early application, are the insolubles, such as ground bone and "basic slag," which may well be put into the ground in the winter or even the fall, so as to be ready for the spring planting.

As a general rule, it may be set down that phosphoric acid and potash are likely to remain safely in the ground till the crop is ready to absorb them.

If the slow-acting, slow-solubles are not put in early they may not be ready to act till the crop has done all its growing, and, in such case, they are like help that comes along after the battle is over.

The greatest amount of potash fertilizer is obtained from wood-ashes, unless there has recently come to be a still greater quantity obtained from certain potash salts.

Ashes from hard wood are better than from soft, and unleached ashes are four times as strong as ashes that have been leached by the action of water, either in the soapmakers' vats or by exposure to storms in some unsheltered pile.

Good hard-wood ashes, unleached, are applied in the liberal proportion of from half a ton to two tons an acre.

Muriate of potash, admirable for the large percentage of potash which it contains, contains also chlorine, which is liable to injure potatoes and onions.

Kainit, a German potash salt, is better for light soils than heavy ones, and is particularly good as an encourager of asparagus. Kainit is also one of the excellent dressings for lawns, and when used for this purpose should be applied between December and March.

The development of modern manufactures has had some odd effects in regard to fertilizers.

Shin Bones as a Spring Tonic

One of the by-products in the manufacture of gas and coke is sulphate of ammonia, which is in high demand as a fertilizer. Phosphate slag, a good fertilizer, is a by-product in the making of Bessemer steel. Bone-black is a refuse from sugar refineries, and is valuable for its phosphoric acid, but it must be treated with sulphuric acid before it becomes available for plant-food.

Bones are one of the great sources of phosphoric acid. One smiles, however, at the hopefulness of the young suburbanite who, because he knows that bone is good, plants his garden with horse vertebræ and great shin-bones. They will be good in time! But it will be a long, long time, during which the good is most sparingly dealt out.

Powdered bone is one of the most general of commercial fertilizers, and some brands contain a mixture of rough-powdered and fine-powdered, so as to combine slow action with quick and thus have long-continued benefit.

From a commercial standpoint, rock phosphates are even more important than bone as a source of phosphoric acid.

Blood and bone together (following the old battlefield wisdom) have been found beneficial for a large variety of crops; for grass and grain as well as for most garden vegetables. The mixture is generally applied in the proportion of from half a ton to a ton an acre.

Not only must the character of the intended crop be considered but also the character of the soil.

It is likely that a heavy soil requires more phosphoric acid than either potash or nitrogen. Nitrate of soda might be injurious to a heavy soil through attracting too much water to its surface. A light and sandy soil is likely to be deficient in nitrogen. What is known as a "peaty" soil has enough nitrogen but not nearly so much potash as is desirable.

Necessarily, in deciding what to feed your plants in fertilizers, it is well to know in what proportion the soil already possesses the essential plant-foods. A crop such as cucumbers especially requires potash, but if that element is unusually strong in your soil you may omit it from your fertilizer. The chemical character of your soil is a difficult matter to determine, for even a chemical analysis could not differentiate between available and unavailable constituents. By knowing what crops have flourished on your land in past seasons, what crops have grown poorly, and by your experiments, the character of the soil becomes known to you.

After deciding what is already in the field add the special foods required by your crop. A hill of potatoes with twenty good tubers in it is as easily "farmed" as a hill with a spindling three.

The potato feeds most liberally on potash, but finds room for some nitrogen and phosphoric acid as well. The favorite diet of the turnip is phosphoric acid; that of the carrot is nitrogen. Pick your fertilizers accordingly.

Beans and peas demand potash and phosphoric acid. Corn is a coarse and hearty feeder, with an appetite for variety, but phosphoric acid is its favorite, potash next, and nitrogen last.

In fact, it must never be forgotten that food in some degree of variety is demanded by all plants. They cannot live by potash alone or nitrogen alone or phosphoric acid alone. It is all a matter of degree and proportion.

Clover is such a source of nitrogen that it would be supposed that it must be fed nitrogen. This, however, is not the case, as it draws nitrogen from the soil-air and is therefore in greater need of potash and phosphoric acid.

It is a curious fact that, although the air above every field contains tons of nitrogen, it is not in available form for plants, with the exception of those of the leguminous family, of which clover, alfalfa, peas and beans are the most important members. These, through little nodules on their roots, absorb nitrogen from air which permeates the soil.

The beet has a special liking for nitrogen. A special appetizer for celery, early radishes and lettuce, and, in fact, for garden vegetables generally, to hasten their development and add to their delicacy and crispness, is nitrogen, although this may not be the greatest food for them in quantity. Lettuce needs almost twice as much potash as nitrogen, but the nitrogen is a swift and eager stimulant for it.

The onion has a practically impartial appetite for both potash and nitrogen, with some phosphoric acid as a side dish, so to speak. Cauliflower and cabbage eat ravenously of potash, the cabbage eating about twice as much of this as does its less coarse sister.

After one has learned of the general action of different kinds of fertilizers, and of the general needs of his own crop and his own soil, there is keen interest in following up special lines and in learning such points as that horn shavings are a rich fertilizer, especially for roses and chrysanthemums.

And it will be remembered, too, that Mark Twain, in writing of farm problems, touched the realm of fertilizers with his inimitable humor in saying that "the guano is a fine bird, but great care is necessary in rearing it."

Forest Planting

THE United States is now ahead of Canada in its preservation of the forests, and Canada's sole advantage is that she has more left to preserve. This, of course, is due to the fact that American forests, being nearer the market, were exploited first. Canada, therefore, has the opportunity to do far better with her forests than we have done with ours.

In the earlier methods of handling forest lands owned by the Government there was only this difference between Canada and the United States: the former leased where the latter sold outright. So far as results were concerned there was no difference: the lessee in the one case denuded the land and then left it for the Government; the buyer in the other case denuded the land and then let it revert to the Government for taxes. Canada still holds to the leasing system, which is unquestionably a very bad system, but she has many and large forest reserves, similar to our national forests, that are under Government control, and her policy with regard to these is the same as ours. Both countries have the same general idea and purpose, although there is some difference in their methods of working this out.

The first Derby made in America was a
C & K

Hats for Men

Knapp-Felt

The CROSS-COUNTRY HAT

THE delightful mellow texture is a unique feature of Knapp-Felt. It is not like any other hat-fabric and is not intended to be. It is a product peculiar to the C & K shop and is not successfully imitated in any other make.

The picturesque shapes for early fall wear harmonize with the negligee dress and are an agreeable change from the stiff unyielding straw hat. The crowns may be creased, dented or telescoped; the brims turned up or down in front or back, or worn with a rakish sweep at the side.

Knapp-Felt soft hats are made in a sufficient variety of attractive colors of steadfast Cronap dye to afford a wide range of choice.

They are for sale by the best dealers throughout the United States.

Knapp-Felt DeLuxe hats, soft or derbies, are Six Dollars. Knapp-Felts are Four Dollars—everywhere.

WRITE FOR THE HATMAN

THE CROFUT & KNAPP CO.
340 Broadway, New York

SOCIETY BRAND Clothes
are the highest achievement in modern tailoring for young men and men who stay young.

Made in Chicago by Alfred Decker & Cohn. Sold through the better clothiers.

Society Brand

THE ELUSIVE TIP

The Costly Part it Plays in the Great American Scramble for Easy Money

By ISAAC F. MARCOSSON

IN THE scramble for Easy Money, the tip on the "dead certain" Wall-Street proposition makes more losers than all the race-tracks of the world combined.

"Show me a tip and I'll show you a sucker," says the man who has been up against the game and become separated from his dollars. Yet, curiously enough, he is willing and anxious to get buncoed again in the same way.

In Wall Street there is a tip each way on every market movement ever planned, imagined or executed.

That is the reason why playing them is like going into a game with all the cards stacked against you. Chasing the elusive tip costs the American people millions of dollars every year.

There are, in the main, three kinds of tips in Wall Street:

1. The tip that apparently comes from nowhere, and that everybody seems to hear about.

2. The tip that grows from hearsay and which is changed and magnified with each retelling.

3. The tip that is inspired by big operators to make or influence markets, and which is worked through the newspapers or news bureaus.

The purpose of these tips, and of all other alleged anticipations of market movements, is quite the same. It is to tax the cupidity, credulity and pocketbooks of as many people as possible in the shortest given time.

Here is a tip experience told in terms of actual events:

A man who owned some railroad stock which we will call "X. Y. Z.," and who had done some operating in a small way in Wall Street, started on a little journey into the domain of bulls and bears to get some information. He was known to some of the frequenters of brokers' offices. Hardly had he crossed the shadow of the marketplace than he encountered a tipster.

"Just the man I'm looking for," said the tipster as he drew his man into a sheltered doorway. "I've got a dead sure thing. It simply can't get away from you. Buy X. Y. Z. I got it straight from a man who heard one of the directors of the road say that the dividend would be increased at the next meeting."

The man continued his journey. Before long he ran afoul of another tipster. "Got the best thing going," the tipster said. "You've got some X. Y. Z., haven't you? Well, sell it as fast as you can. It has come to me from an absolutely reliable source and from the inside that the dividend will be reduced at the next meeting. A friend of the assistant to the president told a friend of mine. Don't say anything about it."

If the man had continued his trip he very likely would have encountered another tipster who had information from a proverbially "authentic and unquestioned source" that there would be no dividend at all and that the best thing for him would be to give his stock away.

"Scandal" in the Stock Market

The aspects that an apparently innocent tip can assume are amazing. A man, for example, starts a report in Wall Street that he understands there is to be a bull movement in Southern Pacific stock. The next man hears that a syndicate is being formed to take over a majority of the stock. The third version of the report will be that a complete change in management of the road is about to take place; the fourth rendering, that the road is trembling on the verge of bankruptcy.

It is very much like an old game of "Scandal." "Scandal" was played by any number of people, one of whom repeated a sentence to his neighbor, who in turn repeated this to the person next to him. Thus it was passed to every one present. The last one who received the message wrote it down as he heard it. Usually it was entirely different from the original statement.

So with many Wall-Street tips and other "good things." Yet for all that the public continues to put faith in these gold bricks. Perhaps the most popular peg on which the tipster hangs his tips is the dividend, for the declaration of dividends and their increase or decrease enters very largely into the influencing of stocks in the market.

But the tip in Wall Street has another useful service. The tip has come to be regarded as one of the useful and necessary tools of big operators and financiers in unloading stock and making a market. Here, as in all other activities which involve the tip, the public is ostensibly let in on the ground floor, and comes out singed, sadder and poorer.

Take, for example, the case of a group of big financiers who were interested in a stock which had declined steadily in price. They wanted to make a bull market on it. The public had previously bought heavily and was nursing sore bank accounts. The big financiers called the friendly tip to their aid. This is the way it was done.

Low Methods of High Finance

Just about the time that the newspaper reporters dropped in to get the day's news Big Financier Number One "accidentally" met Big Financier Number Two in an outer office. A reporter and a representative of a news bureau were present.

Big Financier Number One said to Big Financier Number Two, in passing, "Looks like a bull market in X."

Of course, the newspaper men pricked up their ears. What they heard was both interesting and significant because it came from one of the Powers That Be. It did not take long for that "chance remark" to be speeding over the wires of the various news agencies, or to appear in the Wall-Street Gossip, or to even show itself on the news slips that contain Wall-Street information

The public, ever ready to get in on a supposed "inside" tip, especially when it apparently comes from the Big Men, immediately began to buy the stock. Just about that time Big Financier Number One and Big Financier Number Two were congratulating themselves that their "casual" remark had delivered the goods. The bull movement was on.

Pick up a Sunday newspaper in New York and you will see a dozen advertisements of the Wall Street tipsters and other purveyors of "inside" information.

Some of the tipsters issue "financial forecasts" which are printed every afternoon at five o'clock and which contain advice on what to play the next day. One of them contained a sentence like this: "We get it straight that Virginia Coal and Coke will prove the real goods for a big advance."

On this illuminating and specific information the public was asked to step up and drop its money into the yawning maw of the Street.

Frequently the "market letters" are so cluttered with the technicalities of the language of the Street that the layman finds it extremely difficult to translate them into plain English. But this "information" usually spells promised wealth, and he is willing to follow it.

Once in a while the professional tipster hits off a market change. He may have some real information, or it may be a lucky guess. He is quick to make "sucker" capital out of it. He advertises his achievement broadly. What is the result? The public comes rushing in, expecting the guess to repeat itself. It rarely does.

But the layman staking his good, hard-earned money on this alleged information, seldom, if ever, asks himself the questions: "If the tipsters have such good things why do they become philanthropists and let in the public at a small fee? Why do they let the public in at all? Why, if the tips are real and worth playing, don't the tipsters play them themselves and get rich and retire?

Tailored Suits

Made-to-Order—New York Styles

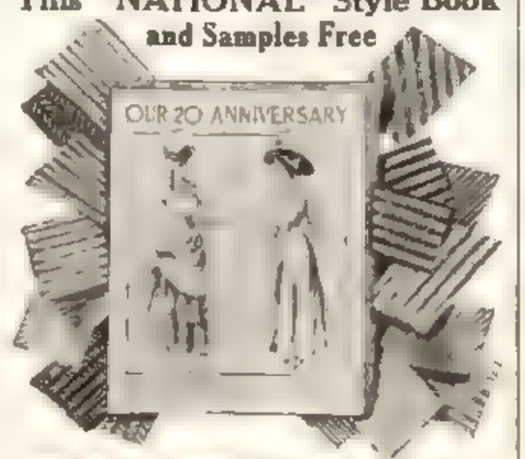
$7.50 to $35

Style Book and Samples Free

The "NATIONAL" 96-page Style Book ... New York this Fall ... Wouldn't you like to ... from among them? All the ... changes in fashions ... the real new desirable models are illustrated in our Style Book. And you can make your own choice of any of these models to measure suits ... trimmed to please you, and made to your order out of your own choice of our 40 new materials for Fall and Winter wear.

And remember all the risk of fitting you ... all this risk is ours. ...

This "NATIONAL" Style Book and Samples Free



... of this 96-page NATIONAL Style Book and Samples ... Free. This is the handsomest ... interesting and instructive style book ever we have ever issued. Write To-day—NOW. No obligations.

If you wish samples of materials for a Tailor-Made Suit state the colors you prefer.

This new 96-page Style Book also shows complete ... the following NATIONAL Ready-to-Wear ... Coats, Waists, Skirts, Furs, Hats, Rain Coats, Petticoats, Corsets, Kimonos, Sweaters, Hosiery

We prepay postage or expressage on anything you order from us to any part of the United States.

National Cloak & Suit Co.

214 West 24th St., New York City

The Largest Ladies' Outfitting Establishment in the World

Dr. JAEGER'S HEALTH SHOE

... the patented, therapeutic cushion inner sole, which ... breaking-in required ... Combines Style and Comfort

... booklet shows all styles and tells about the unique ... Write for it today. A few ... CHAS A EATON CO BROCKTON MASS, ... JOHN KELLY Inc ROCHESTER N Y

Tricycles for Cripples and Chairs for Invalids

Complete catalog sent on request. Write for it today.

WORTHINGTON CO., 150 Cedar St., Elyria, Ohio

Fine-Form MATERNITY SKIRT

Every Prospective Mother

... Always drapes evenly in front and back ... Can be worn the year round

Free ... Fine Illustrated Book "Fine-Form Maternity Skirt" ... Ten Days Free Trial

... wear it ten days, and if you don't find it exactly as represented, send it back and we will cheerfully refund every cent paid. Other Skirts—If not in need of a ... same guarantee ...

Beyer & Williams Co., Dept 26, Buffalo N Y

6% Paid on Time Deposits

Withdrawable at option

Coupon Certificates

One to Three Years

Write today for Booklet A.

Equitable Banking & Loan Company, Macon, Ga.

Shorthand I will give you expert instruction in Shorthand and Business Correspondence. You will have the personal attention of an experienced teacher and court reporter. Write for catalog

WILLIS L. WYMAN, 79 Dearborn Street, Chicago

Ice-cold water day or night.

Frigidor

Keeps water cold all night long. Wonderfully handy in the bed room to quench thirst, to give invalids relief, to satisfy children, to save steps down stairs.

The Frigidor is a sanitary outfit—pure tin container, [illegible] Keeps heat out, keeps cold in. Silk lanyard, durable, attractive.

$1.50 complete. Ask your dealer

Department stores, housefurnishing-stores and druggists sell the Frigidor. If your dealer hasn't it, write us and we'll see that you get it. Write anyway for illustrated booklet.

Whitall Tatum Company

Philadelphia New York

Boston Chicago San Francisco Sydney

THE COOKING SCHOOL

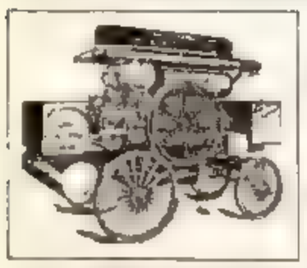
Best Chefs and Cooks say it is the secret of their success

LEA & PERRINS SAUCE

THE ORIGINAL WORCESTERSHIRE

It gives a delightfully appetizing flavor to all Soups, Gravies and Stews, and is the ideal sauce for Steaks, Roast Meats, Fish, Salads and Rarebits.

JOHN DUNCAN'S SONS, Agents, N.Y.



Proven Permanent Profits

The Original Vacuum Cleaning Machine

THE MONEY-MAKER

TURN DUST INTO DOLLARS

[illegible] "Dustless Method." [illegible] Portable Cleaners Stationary Cleaners

General Compressed Air & Vacuum Machinery Company

4485 Dept E Olive St St Louis Mo.

The Only Company that was ever awarded [illegible]

Sense and Nonsense

His First Ocean Bath. "Theodore, Pull the Plug; There's Too Much Water in Here"

The Option Trick

IN THE oil district near Los Angeles there has been developed a new wrinkle in the business of separating the guileless farmer from his money. The victim of the first operation, A. B. Harris, had a farm a few miles from the nearest oil wells, and he had been content to go on tilling the soil with little thought of the possibility of mineral deposits beneath. For ten years he worked hard and lived well within his income, so that in the bank at Los Angeles was a deposit of nine thousand dollars to his credit.

His affairs were in this prosperous condition when he was approached by a stranger who wanted to buy his land. After a good deal of consultation they settled on five thousand dollars as the price, and, in return for a deposit of one hundred dollars, Harris signed a paper agreeing to sell his property to F. K. Kingsley at that price, the money to be paid within a fortnight. The latter departed, promising to return with funds in just a week.

Five days later another stranger appeared on the Harris premises and broached the subject of buying the farm. Before the owner mentioned the option his visitor offered $30,000 for the land, explaining that he had been prospecting for oil and had located it there.

It was with a good deal of regret that the farmer confessed that he no longer had the power to sell because of the paper held by Kingsley. The stranger, however, would not be thwarted by even this obstacle, and suggested that Harris might be able to persuade Kingsley to release his option, since the latter, presumably, did not know the value of the property. Harris fell in with the plan and gave the oil man a written statement, a sort of second option, in return for a deposit of $400. The stranger promised to return in three days to learn the outcome of the interview with Kingsley.

At the appointed time the former customer appeared and stated that he was prepared to close the bargain. The proprietor answered that he had changed his mind and did not want to leave the place, after all. He would be willing to pay back Kingsley's hundred dollars with something additional for the return of the option. Kingsley protested that he wanted the place very much and could not think of giving it up, when he was going to get it at a price so reasonable.

Keeping ever in view the prize to be won, the farmer strove mightily to change Kingsley's decision. He offered more and more, and at last Kingsley relented, consenting to give up his claim for eight thousand dollars. The check was put into his hands at once and he left for parts unknown.

The man who had put up the four hundred dollars never came back. No oil has yet been discovered on the farm, though for a month or so there was a good deal of hunting for it, carried on by Harris and his family. At the end of the quest they decided to go back to farm work and put off the exodus to the city for a few years. The bank account is growing again. Harris says that next time it will be spent for something else than experience.

The New Musician

Silence your ancient music,
Your dreams of a distant star:
Give us a song of the life we live,
A Song of the Things That Are!

Sing of the white Sierras,
Of the Gloucester fleet at sea,
Of the great North's silent forests
And the baking Florida key.

Give us the railroad's rumble,
The hiss of the forging steam,
The shops by day and the mills by night,
And the trolley's tortured scream.

There you will find your heroes,
There till the world shall end:
The man who works for his children,
And the man who dies for his friend.

There does the prize await you,
And not on a distant star,
For the song that shall last forever
Is the Song of the Things That Are!

Poor Richard Junior's Philosophy

¶ Gold comes in quartz and goes in magnums.

¶ The woman who "can't bear Society" is never in it.

¶ The lie that goes farthest is the lie that has a little truth in it.

¶ If you would learn to blow your own horn, begin by keeping a stiff upper lip.

¶ There's small choice: if you don't let her make a fool of you, she'll make a fool of herself.

¶ The Bull of yesterday is the Bear of to-morrow, but the Lamb is a lamb until he is fleeced and afterward—sometimes.

SOONER or later you are going to have a player-piano. But before you decide on which you shall have, you owe it to yourself and to everyone else in the house, to make a personal investigation of the ANGELUS instruments.

We know that the

ANGELUS PLAYER PIANO

is the **one** instrument which enables you to play **as you would like to play.** We know it is the one player-piano which meets your requirements, step by step, as your knowledge of music develops. But we do not ask you to assume that this is so. We merely tell you that it is **to your own interests** to hear and play the ANGELUS PLAYER-PIANO and judge its unusual musical qualities for yourself.

Note carefully the excellent effects made easily possible by means of the ANGELUS expression devices:

THE MELODANT
which calls forth the melody notes in splendid contrast to those of lesser importance; the

MELODY BUTTONS
to accent or soften the bass notes independently of the treble or the reverse; the

PHRASING LEVER
enabling you to retard or accelerate any particular phrase or rest on any note; the

DIAPHRAGM PNEUMATICS
graduating the finger-blows and giving the incomparable "human touch."

No other instrument has these wonderful patented expression devices.

Each of these expression facilities is patented exclusive with the ANGELUS instruments. Only when you see for yourself how absolutely indispensable they are to correct playing will you appreciate what they mean to your success as a finished performer.

THE Angelus Piano-player, in the form of a convenient portable cabinet, will play any make or style of piano. It is also incorporated in the world-famous *Knabe* and in the sweet-voiced *Emerson* piano—making the *Knabe-Angelus* and the *Emerson-Angelus*.

Write for beautiful new book and name of convenient representative.

THE WILCOX & WHITE CO.
Established 1876
MERIDEN, Conn. Regent House, Regent St., LONDON

YOUR SAVINGS

Savings-Bank Insurance

UNDER the auspices of the State of Massachusetts a work has just been put into operation which has value and significance for every person who has savings. Briefly stated, it is savings-bank insurance. Under its provisions the savings-banks issue life and annuity policies at cost. This arrangement unites two of the largest forces that make for thrift: the desire to save in order to afford protection for the home, and the agency for saving, which is the savings-bank.

The beginnings of savings-bank insurance were interesting. In Massachusetts, as elsewhere, it was recognized that there were three things that every man should do: save enough money to take care of himself in his old age, save enough money to take care of his family in case he died, and save enough money to take care of himself and his family in case he or one of the family became sick. The savings-bank provided the opportunity for the last-mentioned emergency, but the only near way for the other two was offered by industrial insurance, the name commonly given to insurance in small amounts, paid for in small weekly installments, and bought mainly to obtain funds for last illness and burial.

These, in substance, were the large facts that confronted certain Massachusetts people who were interested in improving savings and insurance conditions. Chief among them was Louis D. Brandeis, a public-spirited Boston lawyer, who had made a long study of life insurance. He said: "Savings-banks provide a certain form of insurance, but it is not systematic because saving is not compulsory. Why not combine savings with insurance and let one encourage and develop the other?" He drew up a bill which enabled the savings-banks to issue insurance, and outlining the whole plan. The bill was passed last June and became a law last November.

Life Insurance at Cost

Among other things the bill provided for a State actuary. His task was to prepare a new system of premium tables which would provide insurance at cost, and, at the same time, include all the risk of mortality, which is heavier among wage-earners than among most other people. Some wage-earners in Massachusetts, as, for example, the cotton workers of Fall River, are a more hazardous risk than the shoe workers of Brockton or Whitman. Yet the tables had to make uniform rates for the whole State. They were not completed until after June 1. In July the Whitman Savings-Bank, of Whitman, issued its first policy, thus inaugurating the work. The second bank to secure a license was the People's Savings-Bank, of Brockton. Every bank issuing insurance is required to have a guarantee fund of twenty-five thousand dollars for insurance purposes. This cannot be taken from the bank funds, so it is subscribed outside. In the case of the Whitman bank it was given by six public-spirited citizens; in the case of the People's Bank it was given by Mr. William L. Douglas, the president, who is an ex-Governor of the State.

Under the new law any savings-bank in Massachusetts can issue policies. There are three kinds: whole life, endowment, and combination life and annuity. Thus the wage-earner, who formerly had no choice but industrial insurance, now has the option on all kinds of insurance. Men and women between the ages of eighteen and sixty are eligible. The insured is not required to be a savings-bank depositor in order to take out insurance, but it is an advantage to be a depositor, for the reason that should the policy-holder be unable to pay his premium, the bank, with his consent, is permitted to take it out of his savings deposit. Policies and books of record are furnished free to the banks by the State. The small fee for medical examination is paid by the banks. This fee ranges from fifty cents for the lowest policies to one dollar and fifty cents for the largest policies, which cannot exceed five hundred dollars.

Let us now see what the insurance costs and what it gives the insured. Take the whole-life policy first. A man aged twenty-one years can get a five-hundred-dollar policy for eighty-nine cents a month. When the insured is seventy-five years old the premiums cease. This is the cheapest form of insurance issued by the savings-banks. Here are some more concrete examples of policies: at age eighteen the premium per month for one hundred and fifty-five dollars insurance is twenty-five cents; at age twenty-one the premium on two hundred and fifty-four dollars insurance is forty-five cents a month; at age thirty the premium on four hundred and eighty dollars insurance is one dollar and ten cents a month, and so on.

The Old-Age Annuity

The endowment policies are all payable at age sixty-five. Take the case of a man who takes out a policy when he is twenty-one. By paying a monthly premium of ninety-eight cents he gets a policy that pays him five hundred dollars when he is sixty-five years old. Should he die any time after the first premium is paid (providing, of course, that he has kept his insurance in force) his heirs get five hundred dollars. Other illustrations of the cost of this endowment insurance are: at age eighteen the premium on one hundred and forty-two dollars is twenty-five cents a month; at age twenty-five the premium on two hundred and twenty-four dollars is fifty cents a month; at age thirty the premium on three hundred and twenty-three dollars is eighty-five cents a month. In this, as in all the other forms of savings-bank insurance, there is a cheap premium to meet every age and almost every value of policy from thirty dollars up to five hundred dollars.

No phase of savings-bank insurance is more significant than the old-age annuity feature, which is just as important as the life insurance itself. All industrial communities are feeling the need of some old-age provision for the worker. Germany has resorted to compulsory old-age insurance, dividing the burden of cost between the state, the employer and the employee. The House of Commons in England has just passed an old-age pension bill, the pension being a burden on the general taxation. France is trying to solve it in the same way. In all these countries the cost of this pension is, wholly or in part, put on the taxpayer, and thus makes the wage-earner dependent upon public taxation. By the Massachusetts' savings-bank insurance plan the old-age insurance is voluntary instead of compulsory, and, instead of making the wage-earner dependent upon the people, makes him independent in his old age.

Here is the way it works out: at age twenty-one the insured begins to pay a monthly premium of one dollar and thirteen cents into the savings-bank. When he is sixty-five years old his premiums cease and the bank pays him one hundred dollars every year until his death. In case of the death of the insured before the sixty-fifth year, his family or heirs get five hundred dollars. At age twenty-five the insured can pay a premium of one dollar and thirty cents a month and get an annuity of one hundred dollars a year on and after he is sixty-five. In case of his death the family or heirs get five hundred dollars.

Other examples of this annuity-insurance policy are: at age eighteen, for fifty cents a month the insured gets two hundred and seventy-three dollars insurance and an annuity of fifty-four dollars; at age twenty-five, for a monthly premium of seventy-five cents he gets two hundred and eighty-eight dollars insurance and an annuity of fifty-eight dollars; at age thirty, for a monthly premium of ninety cents he gets two hundred and eighty-eight dollars insurance and an annuity of fifty-eight dollars.

In paying the annuity the bank's plan is to deposit the money to the credit of the insured, and he or she can draw it out any time or in any small installment. All the while it is drawing interest.

One of the great hardships imposed by industrial insurance is the loss to the policy-holder from lapses. On most industrial policies there is no surrender value until after three years. Since most of the policies lapse before this time there is very little chance for the insured to get anything back. A policy issued by a Massachusetts savings-bank, on the other hand, has equity after six months and a paid-up value after one year.

To illustrate: Take the case of a man aged thirty years who pays a premium of one dollar and thirty-two cents a month. At the end of six months he would have an equity of one dollar and eighty-four cents. In a year if he stopped paying premiums he could get a paid-up policy for eight dollars; in five years, if he stopped, he would have a paid-up policy for seventy-two dollars, and so on. In other words, the banks want the policy-holder to get all he possibly can for his money even should he give up his insurance.

For the same reason there is the utmost liberality in the matter of extending policies. If a policy lapses after one year the bank is authorized by law to extend it for eight months. Should the insured die within this time his heirs would get the amount of the policy. If the policy lapses after two years, the period of extension, during which time the policy is valid despite the fact that no premiums are being paid, is one year and nine months. If a policy lapses after five years it can be extended for five years and ten months more.

In addition to all this the policy-holder in a Massachusetts savings-bank is entitled to a share of the profits earned by the insurance department of the bank. The cost of operating being very small (the work being done by the bank clerks), the banks can afford to put aside a good percentage of reserve and invest it so that it will earn money for the policy-holders. This is easily possible because all Massachusetts savings-banks are mutual banks and there are no stockholders to get the profits.

The question naturally arises: How can the banks afford to sell insurance so cheaply? One answer is that the insurance is sold at cost and not for profit. Another is that the heavy expense of soliciting business and collecting premiums is eliminated. Under the law there can be no canvassing for savings-bank insurance and no house-to-house collection of premiums. This removes a very heavy charge from the premium and places it at the disposal of the policy-holder.

What is in the Pay Envelope

Although the house-to-house solicitation for business is prohibited, the savings-banks can have agents. These agents may be other banks. Thus five or six big banks can issue policies for half the wage-earners of the State.

A more popular plan, and one that has already been put into operation, is to have large factories, settlement houses and labor organizations act as agents. Factories have seen in the movement a good adjunct to welfare work and an aid in providing an old-age pension for faithful employees.

The advantages of savings-bank insurance are being brought home to the worker. Bulletins stating the plan are put into the pay envelope of the workers at Whitman every Saturday. Each bulletin is a sort of sermon on saving. One had for its text, "A dollar saved is a dollar earned." Another text was: "Take care of yourself and your family." One example used was this: "If there were two grocers in Whitman, and one sold as good coffee as the other at twenty-five per cent. less, from which one would you buy? The Whitman Savings-Bank does not sell coffee, but it does sell life insurance, and it sells it for twenty-five per cent. less than the industrial companies?"

Thus a constructive movement has been started which combines thrift and protection for the wage-earner. Yet its lesson of saving is for everybody. In no State could it have been begun under better auspices, for the reason that the Massachusetts' savings-banks, with the sole exception of those of New York, operate under the strictest laws governing such institutions.

Safe Investments

FOR over twenty-six years we have made a specialty of supplying investors with carefully selected bonds. During that time we have purchased with our own funds, and in turn sold to investing clients, municipal, railroad and public service corporation bonds totaling many hundred millions of dollars. In every case the safety of these bonds was first determined by thorough investigation. As a result of this careful policy our list of customers includes not only all kinds of public institutions, but also what is believed to be more private investors than are served by any other banking house in the country. We believe our services will prove of value to investors.

We own and offer at the present time over 200 different issues of bonds which we recommend for investment at prices to yield

3¾% to 6%

Write for circular offerings and booklet "Investment Banking"

N. W. Harris & Company

BANKERS

56 William Street, New York — 35 Federal Street, Boston

Bond Department

Harris Trust & Savings Bank

204 Dearborn Street, Chicago

Where are Your Valuable Papers?

A minute's forethought is better than years of regret—
Get your will, deeds, insurance policies, private letters, etc., into

·THE·SAFEST·PLACE·IN·THE·WORLD·

Do it now—before it is too late.

Safe Deposit By Mail is easy, practical, safe, inexpensive.

Write for the illustrated book.

CARNEGIE SAFE DEPOSIT CO.

U. S. Realty Building, New York, N. Y.

9,059-Word Business Book Free

Simply send us a postal and ask for our free illustrated 9,059 word Business Booklet which tells how priceless Business Experience, squeezed from the lives of 112 big, broad, brainy business men may be made yours—yours to boost your salary, to increase your profits. This free booklet deals with

—How to manage a business
—How to get money
—How to get customers by mail
—How to increase circulation
—How to increase sales
—How to collect bad debts
—How to write a good letter
—How to get and hold a position
—How to advertise a business
—How to increase the efficiency of employees

Sending for this free book binds you to nothing, involves you in no obligation, yet it may be the means of starting you on a big money-making career. It relieves you of no dollars yourself, it costs you a penny only when it involves only the cost of a postage stamp, a penny! Simply say "Send on your 9,059-word Booklet." Send to

SYSTEM, Dept. S-29, 151-153 Wabash Ave., Chicago

Your Savings Are Safe

free from speculative risks, and earn for you

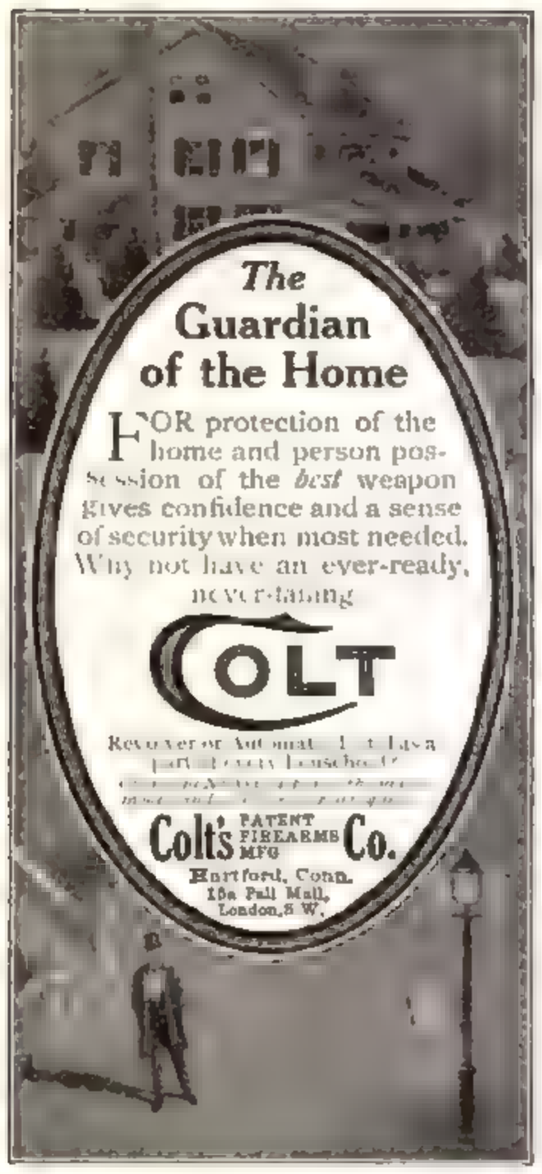
Five per cent. a year

when invested with this Company. Withdrawable on required notice. Earnings reckoned for every day, and paid by check mailed quarterly, or semi-annually—or compounded if desired. Secured by Mortgages upon selected New York and Suburban Real Estate. Established 15 years, and conducted under supervision of New York Banking Department.

Assets $1,500,000.

Industrial Savings and Loan Co.
1 Times Bldg., Broadway & 42d St., New York

PATENTS Mason, Fenwick & Lawrence, Estb. 47 years. Box C, Washington, D.C. Best references. Careful work. Terms moderate. Booklet Free. Write us.


The
Guardian
of the Home
FOR protection of the home and person possession of the best weapon gives confidence and a sense of security when most needed. Why not have an ever-ready, never-failing
COLT
Colt's PATENT FIREARMS MFG Co.
Hartford, Conn.
10a Pall Mall,
London, S. W.

For 10 Days' FREE Trial This
"U. S." AUTOMATIC
PENCIL SHARPENER

Our Offer: We will send to you, express prepaid one U S Automatic Pencil Sharpener on receipt of money order for $2.50. If you are not entirely satisfied after using the Machine for 10 days, if it does not do good all of our claims for it and is not absolutely perfect in every respect, pack it up and ship it back to us, express prepaid, and we will return your $2.50 without question.

OUR CLAIMS for the U S Automatic Pencil Sharpener

It saves its cost many times a year wherever three pencils are used. It cuts off just enough and no more. After a pencil is sharpened it will last longer. You can write more than one-third longer with a sharp pencil. It is simple and durable and lasts for years. It will not get out of order. It does a great deal of work. It makes a handsome and useful present. It is a necessity in every office. It prevents waste of pencils.

Write for our Booklet "A Saving Pointer."

It tells you how to stop a heretofore intangible Office Expense.

AUTOMATIC PENCIL SHARPENER CO., Inc.
Dept D, Cor. Spring and Crosby Sts., New York City

INDIANAPOLIS
G & J
BICYCLE—TIRES—MOTORCYCLE

Why are practically all motorcycles equipped with Indianapolis G & J Tires?

Why are more Indianapolis G & J Bicycle tires used than any other kind?

Because riders know that they are the best. They wear longer and give less trouble than any other tires made. Full of life and speed—easy riding over all kinds of roads and easy to repair when punctured. No tools required—no cement to hold them on the rim.

G & J TIRE CO., Indianapolis, Ind.

Branches and agencies in all principal cities. Send for catalogue and prices.
Handled by All Dealers

We Have a Business Opportunity for One Student at each educational institution. A chance to secure a paying business, *without canvassing*—to earn money with a small effort, to *become independent* and *secure a business training* through actual experience. A Dignified Business ... Snap. ...

YALE

THE W. C. KERN CO.
44 Wabash Av., Chicago, Ill.

The Fighting Chance for the Employee—As Seen by Himself

By GEORGE FREDERIC STRATTON

WHILE the employer of to-day is altogether optimistic as to the opportunities for salaried men or wage-earners, the latter are usually pessimistic. Their point of view is that of the man who waits, and waiting is always tedious and depressing.

In all times an employee has had to wait for his chance, and patience and confidence in a good purpose have always been urged as a desideratum. Under the old régime of business a man could often see his chance coming from the natural growth of his employer's business—which was always a small unit, or at least a unit of such size that an employee's individuality was not obliterated. He was in daily contact with his employer, and his good (as well as poor) qualities stood out much more insistently than those of a man who is to-day usually known by a number on the pay-roll. To-day the "waiting" consists (in the opinion of many employees) in waiting for dead men's shoes, rather than in waiting for a welcome and frequent opportunity of showing ability and readiness to meet greater demands.

Nor is this opinion altogether unreasonable. In an office squad of twenty or thirty men under one chief the chance of promotion for any man may not come for years. It is utterly uncertain and indeterminate, and the strain of keeping up a top-notch pace in competition with perhaps eight or ten other men who are equally in line is no light matter.

"My chance of becoming a foreman," said a very bright mechanic, "lies in two ways: either I must keep continually on the watch for a similar job in another shop, or I must wait until our foreman gets through. He's a husky chap, good for twenty years yet—or more—and, even if he got through to-morrow, there are five or six men in here as good as I am, and they stand as good a chance for the job. It's just like holding a lottery ticket with the date of drawing in the air."

That is the feeling expressed, or unexpressed, of hundreds of thousands of workmen and clerks to-day. And with it, in very many instances, is a cynicism and resentfulness at the bald and reiterated epigrams of many employers and academic writers: "There's always room at the top," "Pluck and energy invariably bring a man to the front," and others to the effect that, in every factory and every mercantile establishment in the land, is a searchlight and a detective force looking for good men. These well-meant assertions, continually hammering on the one point, carry the uncomfortable impression that, in the opinion of the employers, there are no good men among the hundreds of thousands of mechanics, bookkeepers and store clerks to whom they are addressed. Even those who hold good—or very good—positions cannot but feel a covert sneer in the assertions that, although their positions are at present filled, the employers are still looking for "good men."

This is not pleasant, nor is it helpful. And there is a suspicion among many that it is not altogether correct. It would be difficult, to-day, to point to any railroad or large industrial establishment which is suffering from poor management because of inability to find a good man to succeed some retired manager. And if this is true of the big men it must certainly be true of the subordinates.

The Twenty-Dollar Man and the Job

Of course, if it can be pointed out to a twenty-dollar bookkeeper just where a thirty-dollar job is waiting it's up to him to go after it and secure it—if he can; but, if he is told, day after day, that there are scores of thirty-dollar jobs waiting for men big enough to fill them he soon commences to resent bitterly the conveyed imputation and to feel with truthful James:

I hold it is not decent for a scientific gent
To say another is an ass—at least to all intent!

President Roosevelt, in his speech on the "muck-rakers," said: "If Aristides is praised overmuch as just, people get tired of hearing it—they remember that there are other just men."

There are plenty of clerks, to-day, capable of taking charge of their departments. There are thousands of fine mechanics, working at the bench or machine, who are well adapted for foremanship; but the existing chiefs or foremen are good men, and those below them have to wait for a vacancy, and the waiting is no dishonor, although there is some tendency to judge any man by where he is rather than by where he is bound for.

"What salary have you been receiving?" asked a department store manager of a young man applying for a vacancy in the advertising department.

"Twenty-five dollars."

"Um—well, we're looking for a fifty-dollar man—we've no use for a twenty-five dollar man!"

If that were the end of the story it would work in very nicely as corroborative evidence of the difficulty in finding good men; but it was not the end. The young man sprang to his feet, furious at the insolent sneer in the retort.

"How do you know, sir," he demanded, "that I am not a fifty-dollar man? Do you judge of a man's worth by the amount that some one else has seen fit to pay him?"

He got the job and made good. And, as the story is true, it carries several lessons with it.

For the chance of promotion the employee, no matter how good he is, has got to wait. The most optimistic of men do not deny that. He must get ready—and wait. He must stay ready—and still wait. "There is not a self-made man in the world!" says President Tuttle, of the Boston and Maine Railroad. "The so-called self-made man is the man who has seized opportunities given to him by other men and by circumstances."

For Lack of a Little Ready Cash

But while he is waiting for promotion there are fighting chances for improving himself by special education and training, and by getting a little money ahead, so that a chance to obtain a better position in a distant city need not be abandoned for lack of a little ready cash—a thing which very frequently happens among small salaried men and wage-earners.

And this habit of thrift, by the way, carries with it much more than the mere possession of available money.

"If I could know just how my young clerks dispose of their Saturday's pay I should know where to look for material for good men. The dollar sign is the hall-mark of every young man who earns his own living!"

It was not the late Russell Sage who said that, but it was one of the biggest-hearted and broadest-minded merchants this country has ever produced—Marshall Field.

"That may sound sordid," he continued, "but it is true that the young man drawing a regular salary of eight or ten or twelve dollars, who can show a surplus of ten or twenty-five or one hundred dollars, is a man worth watching—not for his saving proclivities, *per se*, not for any hard selfishness which he may or may not possess, but for the splendid self-control and self-respect which a youth of impatient hopes and energies and red blood must possess in order to hold himself well within the limits of such an income."

There are excellent chances which can be and are taken advantage of by even the poorest of day-laborers. In the towns and cities of the Middle West such men obtain homes in a manner which is rarely thought of or practiced in the Atlantic States. In the latter the endeavor and all the advice on the subject are directed to the saving of sufficient money to make a good first payment on a house, not less than 25 or 30 per cent. This, for a small wage-earner who, in the mean time, is obliged to continue paying rent, is well-nigh impossible. In the West the point is to cut out the rent at the earliest possible moment, to turn all such payments into purchase payments.

Economical Power

Efficient, clean, noiseless and absolutely dependable. The most up-to-date and satisfactory method you can employ for driving isolated machines or for general shop work, is to be found in

"THE STANDARD"
Direct Current
MOTOR

We make a specialty of small direct current motors from 1-30 to 15 H. P., adapted to all requirements—Printers' Machinery, Water Pumps, Sewing Machines, Coffee Grinders, Meat Cutters, etc. Exhaust Fans, Forge Blowers, Lathes, etc.

Our motors are guaranteed perfect in design, finish and every detail of construction, and are recognized as the most efficient and durable on the market. They are good for years of continued service.

We are also equipped to design and build ... types of motors for special purposes. If you are a user of power ... 15 H. P. you will be interested in our new book No. 67, about "The Standard" Motor—write for it today.

The Robbins & Myers Co.
Main Office and Factory, Springfield, Ohio

New York 140 Chambers St. Philadelphia, 1109 Arch St. Chicago 48 W. Jackson Boul. Dallas 264 Live Oak St., Cleveland The W. B. Horning Co. 337 Frankfort Ave. N. W. New Orleans S. J. Stewart 316 Bourbon St., St. Louis E. C. Van Nort Electric Co. Locust and 11th Sts., Kansas City, Heath Electric Co.

A SALE BY MAIL

25 SUIT or OVERCOAT
$16.50 To your measure

Yes, we will give you the privilege of selecting any $25.00 Suit or Overcoat from our catalog and we'll make it to your measure for $16.50, tailoring the garment with all the care that full price would command.

This remarkable offer from the famous BELL TAILORS of NEW YORK is made to introduce our tailoring to a few more thousand men in a short Fall business off with a rush. We want ... and ... make or ... They're all free for the request. Write to-night

THE BELL TAILORS OF NEW YORK
Address either of { 226 228 Canal St / 121-123 Walker St
NEW YORK CITY

TOGARDS

Send 10 cts and size of shoe to-day for sample pair

HERBERT L. NELKE & CO. Manufacturers
2149 N. Warnock St. Philadelphia

TOURISTS AND TOURINES

(Continued from Page 5

"Wal, they're figgerin' on that now. Feller wants to get the concession to can the steam from Old Faithful and run a factory with it."

"What kind of a factory? I'm glad somebody perceives the economic value of all this." And the Swede beamed on the narrator.

"Oh, a factory for the manufacture of natural relics from the Park."

"Gee!" exclaimed the Man from New York. "it's a wonder they don't run a trolley line through here."

"Time was," volunteered Colonel Tinny, "when they used to put soap in the geysers to make them explode quicker. A scientific sharp explained that to me once when I was taking him through the Park, but I've forgotten what he said. Anyhow, the custom got so common the Government had to put up a sign: 'Do Not Feed or Annoy the Geysers.' Used to be a Chinaman here who had a laundry. He saw them putting soap in the geysers, and he had a bright thought. He took all the washing for the hotel, put it in a big basket with a lot of soap and hung it in the Beehive."

"Was it an economic success?" asked the Man from Sweden.

"No, I guess you couldn't call it that. Fact is, ten minutes after the Chink hung the clothes in the Beehive the Beehive went off and scattered them clothes all over the State of Wyoming. We was six weeks gitting our shirts back. I found a pair of socks on a church spire down in Cheyenne next fall."

"Time for Old Faithful," shouted somebody.

Old Faithful certainly is the tourist's best friend. Other geysers take their own time and erupt when they feel like it, but Old Faithful comes along every sixty-five minutes and is about as good as any, at that. Waiting for a geyser to play is not an exciting pastime.

Old Faithful began to bubble and spurt. "Yes," said the Lady with the Plaid Dress, "you cannot imagine what a time I had. Let me tell you about it," and she gathered half a dozen people about her. "I had been feeling wretchedly for a long time and the doctor said"—long description of what the doctor said—"and I thought"—long description of what she thought.

"She's beginning!" from one of the listeners to the Lady in the Plaid Dress.

"But wait!"—gathering them all around her again. "I was just sure the doctor was mistaken, and I suffered terribly. Oh, nobody ever suffered as I did. I was so sick I couldn't hold up my head"—long description of symptoms again.

"She's going!" said one of the listeners nervously, trying to look around.

"Listen! I was just certain I had appendicitis, so I said to my husband, I said, 'James, I am just certain I have appendicitis' ——"

"She's playing!"

"Just certain I had appendicitis. So I called in the doctor and told him how I felt"—long description of symptoms "And he agreed with me and said I'd have to go to the hospital. I'd never been to a hospital, and you know how you dread going to one"—long description of how she dreaded it.

"Now she's at top height!"

"But I had appendicitis, and they took me there, just the same. And, do you know, I had a perfectly lovely time, for they operated"—long description of operation, with everybody trying to look at the geyser, but not wanting to be impolite.

"Oh, yes, if I do say it myself, I was very brave, and the doctor said he never saw such a marvelous recovery. It was all due to my perfect constitution, inherited from my father. You know, my father ——"

"It's all over!"

"My father was a very strong man; one of the strongest in the part of the country where I was born —— Why, James, where are all the people going? I thought we came out to see the geyser."

"We did, but we didn't," muttered James.

"Well, anyhow, my father ——"

And at night they turned the searchlight on Old Faithful when it was erupting, entrancing the tourists with the most beautiful spectacle they had ever seen or ever will see.

"Oh, George," gurgled the Bride from Buffalo. "Isn't it perfectly charming. Look at the colors. What makes all the colors, George, dear?"

"Why, darling, they are the same colors we observe in the rainbows."

"Now, George, don't you begin telling me fibs so soon after we are married. How could they be rainbow colors when everybody knows the sun has to be shining to make rainbow colors? I think it's real mean of you not to tell me right. I think the fellow must put colored glass in his light."

"Probably," gritted George through his teeth; "probably, my dear. How clever you are."

"To-morrow," said Colonel Tinny, "we shall visit, among other wonders of Nature, the Handkerchief Pool. You throw a handkerchief in this pool, it is taken down into the bowels of the earth out of sight, and presently returned to you, up through the water, perfectly washed."

"How much does it cost?" asked the Man from Sweden.

"Nothing."

"Another economic waste," sighed the Man from Sweden. "It might be utilized as a laundry."

"Geyser Bob used to have a trick that gave him his name," continued Colonel Tinny. "He would take a party of tourists over to the Handkerchief Pool, borrow a handkerchief, throw it in, and tell them it would come up in Old Faithful, two miles away, that evening. Then he'd have a man stay behind, get the handkerchief when it came up in the pool, and that evening would go up to Old Faithful and pretend to take the handkerchief out. It was fine, for all the tourists used to keep those handkerchiefs for souvenirs, and show them to their friends, and tell how they had been washed in the bowels of the earth."

"Does he do that now?"

"No; you see, one day the handkerchief didn't come up and Geyser Bob dropped one of his silk neck ones into Old Faithful, trying to explain to the folks that the water had marvelously transformed the linen one to silk. They was half-inclined to believe it until they found Bob's initials embroidered on the corner, and they didn't see how that embroidery could be done below."

When you leave the great log inn at Old Faithful you leave the geysers behind you and go on to Yellowstone Lake and the Cañon, to find a big Colonial hotel at the lake on the border of the largest body of water, at its altitude, in the world. The drive from Old Faithful Inn to Thumb Lunch Station is the finest in the Park. You cross the Continental divide twice and, off in the distance, see Shoshone Lake and the Grand Teton Mountains.

"Had a new driver here once," said Colonel Tinny, "and he was asking the boys to tell him the names of the places. So they told him he would pass Shoeshiny Lake and the Tip-top Mountains, and he told his folks. They was all worked up about it, because they couldn't find them names in the book. Best thing he did, though, was to call Apollinaris Spring, Poll Parrot Spring. They call him Poll Parrot yet."

"Are there many elk in this Park?" suddenly inquired the Man from Sweden.

"Estimated at thirty-five thousand!"

"Of what economic value are they?"

"Well, I reckon they ain't much. You see, nobody can shoot them for meat. Feller once made a good thing out of them. He was kind to a lot of them one hard winter. Had a place just outside the Park, and let the elk feed there on his alfalfa. Well, sir, you know elk shed their horns every year. When it came time for them to shed their horns that year, all them elk came up to that feller's place and shed their horns there in a big pile, and he got enough to fence in his whole ranch. Remembered his kindness, you know."

"Such a waste of elk," sighed the Man from Sweden.

"Another feller," continued Colonel Tinny, "trained an elk to dive for fish for him. You know elks will dive in their wild state, off a bank fifteen or twenty feet high. This feller noticed that and trained an elk to dive for fish. He was having an amazin' fine time and gettin' slathers of fish, for the elk could bring up two or three every time, but it didn't last long."

Amatite ROOFING

Don't Cover Another Building Until You Have Seen It!!

THIS advertisement will bring to your attention the *best and cheapest ready roofing* on the market. It will show you how to save money and at the same time possess the best roof obtainable.

Amatite is made in one standard thickness, whereas other ready roofings range from a thin, flimsy half-ply to a three-ply thickness. The three-ply thickness (which by the way is only one sheet of felt) is the only kind that can be compared with Amatite.

But right here is the point. Amatite is better made, has better waterproofing material, and weighs more per square foot than the three-ply grade of other makes, and *costs much less.*

These facts make Amatite the most desirable roofing made.

But in addition to its superiority in material and manufacture, Amatite has one distinction which makes it stand out above all others. *It has a real mineral surface—Amatite.*

It is hardly necessary to state the advantages of such a mineral surface, the freedom from painting or coating, the perfect protection against all kinds of weather, the great durability.

This mineral surface is embedded in a layer of Pitch, the *greatest known waterproofing material.* Beneath this in turn are two layers of the best grade of wool felt—cemented together by more Pitch, making the whole a roofing that is absolutely waterproof.

No other ready roofing can compare with this mineral-surfaced, waterproof, weatherproof, durable roof. That's why we say—*Don't buy your roofing until you have seen Amatite.*

Illustrations above show three buildings covered with Amatite: A. B. Cramer Lumber Co., Suffolk, Va.; Glen Falls House, Fairlee, Vt.; Conway Brick Yard, Phila., Pa.

Free Sample

Send for Free Booklet and Sample to-day. It will pay you to get acquainted with Amatite. Address nearest office.

BARRETT MANUFACTURING COMPANY

New York, Cincinnati, Pittsburg, Chicago, Minneapolis, New Orleans, Philadelphia, Cleveland, Kansas City, Boston, St. Louis, London, Eng.

TRADE B MARK

Paris Summer Garters

A handsome, clean and durable dress accessory for particular men

PARIS GARTERS are on sale in all leading furnishers. If ... will refund purchase price.

PARIS Garters

A Stein & Co. Sole Makers
159 Center Avenue, Chicago

No Metal Touches the Flesh

No Leather to Absorb Perspiration

English Knockabout Hat $1.00

Not a fad, but a stylish, serviceable Hat that would sell for $2.00 in almost any Hat store. It is made of genuine English Felt, with flexible sweat band, and trimmed with narrow outside band. Suitable for dress and business ... and compact roll without damaging. Just the thing for any and all purposes—traveling, motoring, golfing, fishing, hunting, yachting, etc. Every man and boy should have one of these hats. All sizes. Black, Brown, Gray and ... paid, securely packed, on receipt of $1.00.

Order today, stating size and color desired. Satisfaction guaranteed.

FOLDED

Panama Hat Co., 181 William St., New York City

6%

If your money earns less than 6%, you should inquire concerning the Certificates of Deposit issued by this bank. Please write for booklet.

FIRST TRUST AND SAVINGS BANK
BILLINGS, MONT

Join the Taft Four Year League

Copyright, 1908

Buy and wear one of these pins. "That's All." Price 10c by mail

Apply at once for State Rights. Agents wanted.

Taft Four Year League, 135 William Street, New York

"What happened?" asked the Man from Sweden eagerly.

"Oh, the pelicans claimed the elk was violatin' the rules of their union and fishin' without a card, and they made him stop."

"Say, young man," said the Lady in the Linen Duster, "what peaks are them?"

"Grand Teton peaks, ma'am"

"Are they any snakes around here?"

"None to hurt. Rattlers don't come up as high as the Park. Funny thing, though, how scared folks is of snakes. Geyser Bob had a party out onct that was plumb locoed about snakes. They was afraid of seein' them everywhere. Geyser Bob he allowed he'd fix 'em. So, one time, when he was drivin' slow up the road, he got out and looked all around, careful like.

"'What you doing, driver?' the woman in the party asked.

"'Thought I saw a rattler,' says Bob. 'Can't afford to take any chances on this narrow road. Driver came along here yesterday and there was a rattler in the road. Rattler stung the tongue of his wagon, and the wagon tongue swelled up so it crowded the horses off the road and over into the gulch.'"

"Gee!" put in the Man from New York; "it's a wonder they don't build a trolley road through here."

"I understand," said the Man from Sweden, "that there is a creek in this Park called Alum Creek, strongly impregnated with alum."

"That's so."

"Is it of any economic value?"

"Ain't using it much yet. Only thing they do with it is to sprinkle the roads. It's so strong it shrinks the roads and shortens the distance."

"Ain't that grand? Mother, did you hear that? They put alum on the roads, and it isn't half so far."

And the Lady in the Linen Duster beamed.

"I don't see any alum," wailed Mother. "I've got some at home."

"'Tain't so strong now as it was a few years ago," continued the story-teller "Few years ago a man driving a six-horse team, with a big freight wagon loaded with cordwood, drove into that Alum Creek by accident. When he came out his horses had shrunk to Shetland ponies and his cordwood to toothpicks. Geddap."

"Were the toothpicks of any economic value?" inquired the Man from Sweden.

"Too bitter."

You can get a man with a strong back to row you down to the river, where it leaves the Yellowstone Lake, and catch more mountain trout than you ever dreamed were in all the waters of the world in two hours. You can spend days at the Cañon and find something new and awe-inspiring every hour of every day. You can stop for a day or a week at any of the hotels, be comfortable and enjoy yourself every minute. There is more to see in the Big Show at Yellowstone than anywhere else in the world in so small an area, and many things to be seen nowhere else in the world. Deer, elk, antelope, bears, and many smaller species of game are constantly visible. The meadows and the road-edges are gay with highly-colored flowers. Sixty different varieties grow there, the flower sharps say. There are eagles, hawks, pelicans, gulls, ducks, wild geese—all tame, as the animals are, for they know they are safe in the Park. Eighteen thousand persons visited the Park last year. There will be about that many next year. You travel any way you like—in private conveyances, in stages, in parties, alone, on horseback, on foot, camp out or live in luxurious hotels. Really, the annual visitation should be eighty thousand. For this is the Big Show.

And yet—and yet—when we were getting on the train at Gardiner the man from New York took one look up the road, at the great six-horse coaches taking in their loads of eager tourists, and sighed: "Gee! I should think they would build a trolley through there."

THE HERO OF AN HOUR

(Concluded from Page 7)

Smeed thought it was when you cut your toe on an oyster shell.

"See here, Goat," said Turkey decisively, "we can't fool with this any more. You come with me."

The now thoroughly demoralized and penitent Goat went meekly between Turkey and Slugger toward Foundation House. But on the way, encountering the Roman, they decided to consult him instead.

"Please, sir," said Phillips, with difficult calm, "I'd like to ask you something."

The master stopped and, prepared for any eventuality, said:

"Well, Phillips, nothing serious, I hope?"

"Please, sir, I'm afraid it is," said Phillips, all in a breath. "I've just eaten a necktie, sir."

"A what?"

"A necktie, sir, and I want to know if you think I'm in any danger, sir"

The Roman stood stock-still for a long moment, with dropped jaw; then, recovering himself he said.

"A necktie, Phillips?"

"Yes, sir."

"A whole necktie?"

"Yes, sir."

"Well, Phillips, if you can eat a necktie I guess you can digest it!"

. . . . . .

The next morning, when Ironsides Smith unsuspectingly strolled out into the campus, no soul did him honor, not a glance turned as he turned, not a first form youngster, primed with curiosity and admiration, came rushing to his side. Instead, a knot of boys at the farther end of the esplanade were clustered in excited contemplation about Goat Phillips, the boy who had heroically eaten a necktie rather than suffer a dare.

Then Ironsides understood—he was the hero of yesterday. A new celebrity had risen for the delectation of the fickle populace. The King is dead—long live the King!

He went to the classroom disillusioned and sat through the hour stolidly tasting the bitterness of Napoleonic isolation. So this was the favor of crowds. In a night to be dethroned and forgotten!

As he descended Memorial steps, Goat Phillips passed, radiant, saluted by capricornian acclamations.

Smith regarded him darkly.

"As though any one couldn't eat a necktie," he said in righteous disgust.

Unacclaimed he went through the crowd toward the Upper—he who had risked life and limb to amuse them for a week! What was it all worth, after all?

From a tower window in the Upper, the Triumphant Egghead, lolling on the cushioned window-seat, called down lazily:

"Oh, you—Ironsides!"

That was the answer. Popularity might run after a dozen unworthy lights. He had nothing to do with transitory emotions. He must be superior to the voice of the hour. He, Ironsides, belonged to history. That, nothing could take from him!

Long Time Loans

IT IS interesting to note the method by which Europe solves the farm-mortgage problem and creates at the same time a safe bond for general investment purposes Throughout the Continent you will find mortgage companies that serve and reach all the people. They lend money for long periods, often seventy-five years. These loans are called amortization loans. Amortization simply means the repayment of a loan in annual installments during the life of the loan. The installments are included in the interest payments.

The plan is very simple. If a peasant in Normandy wants to borrow one thousand francs on his farm he applies to the local agent or notary, who investigates the land. If the security is satisfactory a loan, which may extend sixty years and which is secured by a mortgage on the farm, is made. The money is sent from the head offices in Paris. The peasant pays approximately 4½ per cent. a year for the money. But part of this 4½ per cent. is applied to the reduction of the loan and he is paying off his debt all the time. This is amortization.

The company takes this peasant's mortgage, and thousands of other mortgages, and issues real-estate bonds against them. These bonds are issued in small denominations (from one hundred francs up), and everybody, even the bootblacks and the scrubwomen, have a chance to invest his or her savings in them. They pay from 2.60 to 3.50 per cent. interest and are dealt in on all the principal bourses.

"Broadway Vaudeville at Perkins' Corners."

THE thing to consider in purchasing a sound-reproducing instrument is the fidelity with which it reproduces the human voice in songs or speeches and the musical notes of instruments. Until you have heard

The EDISON PHONOGRAPH

you cannot appreciate how far Mr. Edison has carried his invention in this respect.

Every note of music and every syllable of a speech is not only clear and distinct, but also a perfect reproduction of the singer, band, orchestra or speaker who made the original Record.

The mechanical excellence of the Phonograph, its delicate reproducers, sensitive wax cylinder Records and smooth, indestructible reproducing point—all exclusive features—give the Edison a richness of tone and a faithfulness of reproduction of all sounds not to be found in any other type of machine.

There's no end of fun in making your own records. Ask your dealer to show you how easily and cheaply this can be done in your own home with the Edison Phonograph and with Edison Record Blanks.

SEPTEMBER RECORDS

Ready Now

Hear them at the nearest Edison store and pick out those you like.

9924	Mexican Kisses (Roberts)	Edison Concert Band
9925	Let Me Crown You Queen of May with Orange Blossoms (Belt & Costello)	Manuel Romain
9926	Take Me Out to the Ball Game (Von Tilzer & Norworth)	Edward Meeker
9927	Dancing in the Barn	Edison Military Band
9928	Hugo (Dutch Dialect Song), Snyder & Farran	Ada Jones
9929	Sim and Sam, the Musical Coons. A racy vaudeville sketch (Original)	Len Spencer and Mozarto
9930	Childhood (Kerry Mills)	Byron G. Harlan
9931	Dance of the Clowns (Trinkhaus)	Edison Symphony Orchestra
9932	Mother's Lullaby (A plaintive slumber song with yodel)	Keefe, Matt Keefe and George Stricklett
9933	I've Taken Quite a Fancy to You (Morse & Madden)	Ada Jones and Billy Murray
9934	Cohan's Rag Babe (Another of the bright musical things from "The Yankee Prince"), George M. Cohan	Arthur Collins
9935	Society Swing Two Step (Eranteze)	Edison Military Band
9936	Somebody Lied, One of the best comic coon songs [illegible], Bowers & Lloyd	Bob Roberts
9937	Throw Out the Life Line (Havens, Clifford	Edison Mixed Quartette
9938	Starlight Maid (The Brilliant feature-song of "The Auto Race"), Kerr	Billy Murray and Chorus
9939	Beau Brummell (Bells), Bendix	Albert Benzler
9940	Oh, Glory! (Hill)	Murry K. Hill
9941	Down in Jungle Town (Morse & Madden)	Collins and Harlan
9942	Flanagan's Shopping Tour (Original Vaudeville Sketch)	Steve Porter
9943	Schottische Medley (Accordion solo)	John Kimmble
9944	Your Picture Says "Remember" Tho' Your Letter Says "Forget" (Henry & Lamb)	Frederic Rose
9945	Tony and Rosetta (Original Vaudeville Sketch)	Ada Jones and Len Spencer
9946	Every Mother's Son There Sang "The Wearing of the Green" (Hollander & Rogers)	Edward M. Favor
9947	The Top Notch March (Arthur)	Edison Military Band

Ask your dealer, or write to us, for the new catalogue of Edison Phonographs, *The Phonogram*, describing each Record in detail; the *Supplemental Catalogue*, listing the new September Records, and the *Complete Catalogue*, listing all Edison Records now in existence.

Thomas A. Edison

NATIONAL PHONOGRAPH COMPANY

11 Lakeside Avenue **Orange, N. J.**

SEEING THE CAMPAIGN

Mr. William H. Taft and Members of the Notification Committee (Senator Warren, Chairman, at Mr. Taft's Right)

WHEN we were boys, and the prestidigitateur came to town, he used to account for his mystifying feats by telling us the movement of the hand is quicker than the eye. It is to be hoped somebody took Colonel William Jennings Bryan, of Fairview, Nebraska, aside, when he made his recent visit to Chicago to help the Democratic National Committee select a chairman and campaign manager for him, and made that explanation to the Colonel. Otherwise, he must be in the dark yet as to what happened exactly when they presented to him the Honorable Norman E. Mack, of Buffalo, the Colonel, meanwhile, emitting a dazed and desultory "Much obliged."

It isn't that Mr. Mack is not a good Bryan man, for he is. He has been a good Bryan man, a lifelong Bryan man, so to speak, since 1896. It isn't that Mr. Mack will not make a good campaign manager, for he is a clever and resourceful politician. The meat of it is that Mr. Mack is as good an organization man as he is a Bryan man; as good an organization man—mayhap, a shade better—do you get that?

Running an inquiring finger down the list of executive committeemen appointed by Mr. Mack, pausing a moment in contemplation of the fine cognomen of Urey Woodson, as secretary, skipping here and there among those well-known names, and picking out a Taggart, and a Johnston, and a Sullivan, and a few more, ever and anon the thought obtrudes that it seems, it appears possible, it is almost apparent, that whatever happens to Mr. Bryan the men who have had the Democratic national organization will still have it after the ceremonies on November third next, when Mr. Bryan will receive either a brickbat or a bouquet, as the case may be. The gentlemen who have controlled the destinies of the Democratic organization will still control them. They have prepared for eventualities, in a manner of speaking.

It would not be just to say these men will not try to elect Bryan, for they will. They will do all they can with the material they have in hand. Still, they know accidents are likely to happen in the best-regulated campaigns, and they have taken no chances. There are times when a national committee has a lot to do with Presidential affairs, and, as it is hardly possible Mr. Bryan will run again if he is defeated this time, why not hang on to the organization and be prepared for 1912? Why not, indeed? The answer is Mack.

Mr. Bryan fussed a good deal over his chairman. He had a list of people he considered, ranging from Ollie James, of Kentucky, the only three-hundred-pound Representative in Congress, to William L. Douglas, former Governor of Massachusetts, and quite keen about free hides. The National Committee looked coldly on this list. "Good," the members said. "Excellent men, all of them; but you see, Mr. Bryan, it is the unwritten law that the chairman of our committee shall be a member of the committee. Precedent, you know, and all that. Fine old sentiment, don't you think? We're tickled with it, positively infatuated. Look us over. We have timber in our midst."

So they jollied along until it came time for Mr. Bryan to go to Chicago, meet with the committee and select the man. There had been talk of a dark horse, and Mr. Mack was darker than a coal mark on an obsidian cliff.

"Whom shall it be?" asked Mr. Bryan, when the sages of the party had gathered in Chicago to settle the momentous question.

"Um—ah!" yawned the committeemen. "Beastly hot, isn't it? Awful weather. 'Rah for Bryan! What do you think of So-and-so?"

"No! no!" protested Bryan. "He would never do."

"Oh, very well. Boy, get us some fans. 'Rah for Bryan! How would What's-his-name suit?"

"Really, gentlemen," said Mr. Bryan, "you must know——"

"Don't mention it, we beg of you. Seems to be getting more oppressive every minute. Humidity, you know, and no breeze from the lake. Tarradiddle—heigho! 'Rah for Bryan! No rain for twelve days. Why, to be sure. Strange we hadn't thought of it before. Just the very man. Where in thunder are those fans? Norman E. Mack, of Buffalo. What do you think of him, Mr. Bryan?"

Well, that was about all. Did you ever see the man who takes a pack of cards and compels you to draw the ace of diamonds seven times in succession? Forcing a card, they call it. There are certain things a candidate cannot do. One is to object too much. Constant protest is likely to make others peevish. Peevish people in a campaign are frightfully careless when it comes to getting out the vote. There is a Siamese-twin connection between those burning thoughts and the position of Colonel Bryan, who was in Chicago to select a campaign chairman and manager who had been selected for him.

Mr. Bryan quit being an idealist along in 1903. That is to say, instead of conducting a shop where he had a small and highly-specialized stock of ideals he went into a bigger line of trade, and now runs a department store where he has on the shelves, together with the ideals, a choice selection of assorted politics.

Wherefore, Mr. Bryan nodded a dubious assent. "Fine," he said. "The very man. Mack it shall be."

And it was. And is.

Then they put Urey Woodson on a silver salver and handed him to Mr. Bryan, and Mr. Bryan assented again. After that it was easy sailing. They gave Mr. Bryan the privilege of selecting his own treasurer, and the meeting adjourned amid harmonious cheers and fervent promises to take off coats, put shoulders to the wheel, wage the battle unceasingly, fight the good fight, keep the faith, buck the line hard, soak 'em, eat 'em alive, and all other things political managers and, particularly, national committeemen are supposed to do to the scoundrelly opposition, including

The Finish on Your Floors

has much to do with the general attractiveness of your home. That is why you should know how to keep your floors in good order in a simple and economical manner.

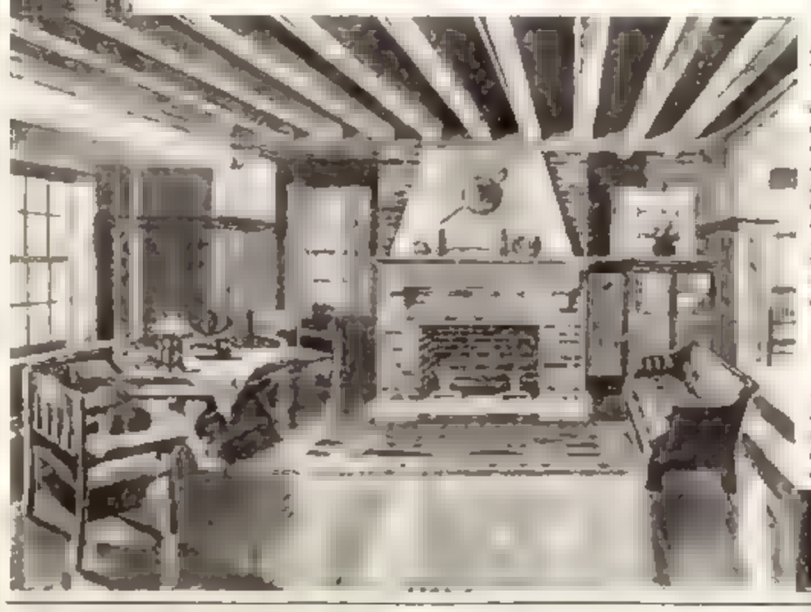
For more than thirty years we have been recognized as the leading wood-finishing specialty house.

This is shown by the fact that

"Bridgeport Standard" Wood Finishing Products

have been specified by all well-informed architects during this period, and they are today recognized as the standard not only by architects, but by painters and wood finishers everywhere.

SOLE MANUFACTURERS
THE BRIDGEPORT WOOD FINISHING CO.
Box 127, NEW MILFORD, CONN., U.S.A.



Note this Temperature Test of the

THERMOS BOTTLE

Here are two pictures of an actual Thermos Bottle test. The Thermos Bottle on the left has stood in boiling water **72 hours** and its contents are still ice cold. The Thermos Bottle on the right has been packed in ice **24 hours** and its contents are still steaming hot.

The same Thermos Bottle on your outing trips will keep drinks hot or cold without fire or ice.

At home the Thermos Bottle will keep baby's sterlized milk at feeding warmth day or night, or, as a refrigerator, will keep baby's food cool and pure—or will keep hot and cold drinks always handy at a sick person's bedside.

The vacuum does it. No chemicals. Filled, cleaned, emptied same as any ordinary bottle.

Everybody should have at least one Thermos Bottle.

Patented in all countries—beware of infringements. Sold everywhere. If your dealer will not supply you, we will ship prepaid on receipt of price. Pints, $3.75; Quarts, $5.75. Over 700,000 sold in 1907.

SEND POSTCARD TODAY FOR FREE BOOKLET ABOUT THE THERMOS BOTTLE.

American Thermos Bottle Company, 533 Fifth Avenue, New York

Moving Picture Machines

Stereopticons

You Can Make $10 MONEY Entertaining the Public

THE FIELD IS LARGE

Our Entertainment Supply Catalogue

Chicago Projecting Co. 228 Dearborn Street, Dept. L, Chicago

Chattanooga College of Law

Law Department of the University of Chattanooga. Two

Major C. B. Evans, Dept. C, Chattanooga, Tenn.

Automobile Accessories of every description. Lamps,

CENTAUR MOTOR CO., 83 Franklin Street, BUFFALO, N. Y.

BANKING BY MAIL AT 4% INTEREST

By our method of receiving deposits by mail, the depositor of limited means is enabled to bank safely and conveniently with one of the oldest and largest savings banks in the country. Write for booklet "M."

THE CITIZENS SAVINGS & TRUST CO.
CLEVELAND, OHIO. RESOURCES OVER 42 THE CITY OF BANKS MILLION DOLLARS

turning the rascals out. And they kept the organization intact, nevertheless and notwithstanding, which is the fact that looms up like a lighthouse in a fog.

Coincidentally, and almost contiguously, indeed, Mr. William Randolph Hearst's Independence party was on the spot. Mr. Hearst and Mr. Bryan did not meet. Time was when Mr. Hearst supported Mr. Bryan with red, blue, yellow and pink ink, but when the moment came for Mr. Bryan to support Mr. Hearst, Mr. Bryan had no ink on hand, nor any support. At the St. Louis convention, in 1904, when Mr. Hearst was clamoring for the Democratic nomination for President, Mr. Bryan took the Nebraska delegation, swung it around his head three times, and threw it at poor, defenseless Francis M. Cockrell, of Missouri, who had about as much chance of being nominated as Colonel Jim Ham Lewis has of getting the barber vote. In the opinion of Mr. Hearst that was rank of Mr. Bryan, and it rankled. Then came that other time when Mr. Hearst was trying to be elected Governor of New York There were several auspicious moments for the clarion voice of Mr. Bryan to ring out in that campaign, ring out over the New York proletariat and across them and through them, and, while ringing, ask the said proletariat to step up and vote for Hearst.

It didn't ring. Mr. Bryan put a muffler on the clapper. Not a Bryan leaf stirred.

Wherefore, Mr. Hearst, now, finding it difficult, if not impossible, to garner any laurels in the way of office from the Democratic party, and holding Mr. Bryan somewhat responsible for that condition, put his own personally-conducted party in the field, amplified his New York organization into a national one, and never allowed Mr. Bryan to come within the purview of his gaze. Ardent and impulsive by nature, Mr. Hearst found himself tempered a bit by his experiences in trying to attain the Mayoralty of New York and the Governorship, to say nothing of his spurt after the Presidency, and he would not allow the use of his own name for candidate on his own ticket by his own party. Caution comes with age, and Mr. Hearst has attained a stock of very excellent and well-preserved prudence. Not this time; but, if the Independence party makes a good showing and has any vitality, perhaps the next. The man who has the patience to make a new party surely has patience enough to wait and see what he has made. Besides, there may be a chance next time.

Forming a new party is a diversion few of us can afford. It is much more expensive than keeping a yacht or collecting a flock of automobiles. Mr. Hearst has the money, apparently, for he had a tidy little convention, with delegates from almost everywhere, and they went through the whole performance without a hitch, save for a few fevered moments when a misguided person from Kansas, named Sheppard, tried to inject the name of Bryan into the proceedings. It takes all sorts of men to make a party, and Mr. Hearst, apparently, laid in a few prize-fighters along with the other high-brows and reformers he accumulated, for what they did to Sheppard was merely to beat him into a pulp. So soon as they discovered Sheppard was there to nominate Bryan, the delegates rose en bloc, as John Dalzell would say, and they blocked Mr. Sheppard, to say nothing of almost knocking off his block. Those who, unfortunately, could not reach the Kansan contented themselves with slogging their neighbors. Militant party, you know.

Mr. Hearst's party adopted a modest little platform of some ten thousand words or so, congratulating itself on its close facial resemblance to the movement that culminated in the Declaration of Independence, and running down the line from the penning of that immortal document by T. Jefferson to a few eloquent remarks on the subject of dry farming. Next to Taft's speech of acceptance it is the longest political promulgation we have had this campaign, and it is a fine, comprehensive affair, embracing as it does all of Mr. Taft's planks, all of Mr. Bryan's planks, and having an additional lumber-yard of its own original, Hearst-sawed goods.

Mr. Hearst's speech as temporary chairman was what is known in the best writing circles as "vitriolic." He took the hides of all who were not present and hung them up on the wall in full view of the audience. Every time he stamped his foot you could see the lightning flash from his eagle eyes. Until that moment the country had no adequate knowledge of what a bunch of Judas Iscariots all who are not in the Independence party are. Mr. Hearst gave it out definitely, though, and no person need be at a loss to know whether he is an enemy of the Republic or a savior of his country. Hearst diagnosed the case for the whole eighty millions of us. Personally, Mr. Hearst is the number-one boy in the savior-of-his-country class. The Ship of State shall not sink so long as he has his voice. That's sure enough. And Admiral Hisgen and Vice-Admiral Graves will be on the rescue job, also.

Looking it all over, with Bryan exuding language at every pore, with Taft unable to say anything inside of two hours, with Prohibitionist Chafin literally bursting with unspoken speech, with Hisgen and Graves tapping new founts of words every hour, with Socialist Debs socializing across the country in a special train and cascading conversation, there is a fair chance that the welkin will have a fit of ringing between now and November that will sound like a continuous explosion in a phonograph foundry.

While all this has been going on, and since, Chairman Hitchcock has been leaping from crag to crag across the country, from Boston to New York, to Washington, to Hot Springs, to Kankakee, to Oshkosh, to Kalamazoo and back again, instructing the committeemen how to keep their card indexes and conferring with everybody.

Dolorous Republicans stalk into headquarters from the outlying districts and talk of apathy, and dolorous Democrats come in and indigo the situation. Occasionally there are whiffs of what is going on. The death of Senator Allison split the Republicans wide apart in Iowa again, and things seem to be sliding down hill so fast in Ohio that there is no telling what sort of a bump there will be. The valiant George B. Cox is sulking in his bank in Cincinnati. There is a liquor fight on Jimmie Garfield, Burton, Warhorse or hobby-horse or some-kind-of-a-horse Grosvenor, and Myron T. Herrick and a few more are trying to succeed Senator Foraker, who is making a few efforts to succeed himself. Moreover, Brother Charley Taft, being on his way to get a President in the Taft family, or not get one, as it turns out, has an idea he would make a pretty fair Senator himself, and he has obtruded himself into the mêlée, all of which causes a grin at Fairview, Nebraska.

They have ripped it open out in Kansas with the fight between Bristow and Long for the Senate. Indiana has a grouch that won't come off, and all around, to hear the Republicans tell it, the situation is about as it was in 1892, when the Republicans said: "Oh, shucks!"—only they didn't say shucks—"we have the thing spiked with a Republican Senate, anyhow, so what's the difference?" In 1892 Ohio managed to squeeze out 1072 plurality for Harrison, while Mr. Roosevelt got 255,421 over Parker in 1904, and in 1905 the Democratic candidate for Governor accumulated a neat little plurality of 42,647, which shows that Ohio, Mr. Taft's State, is a versatile commonwealth

If the situation is the same as it was in 1892 Mr. Taft would do very well to arrange for a vacancy on the bench of the United States Supreme Court before March 4, next, unless he desires to go back to the practice of law in dear old Cincinnati. However, there is, as yet, no situation. The dog-days are responsible for the yowls from each side. Along about the middle of September a few persons will know what is going to happen, perhaps.

Taft added a touch of sentiment—and there should be sentiment in every campaign—to affairs when he asked the reporters to call him "Bill." Overlooking the fact that "Bill" is what the reporters have always called Mr. Taft, this was the first time he got it into print, and it shows the human side of this great man. A plain, common, every-day fellow, like the bulk of the voters. Just "Bill." He said they began to call him "Bill" at college and that gives rise to the natural query: What did they call him when he was a boy in Cincinnati? The other boys, I mean. William Howard, probably.

Names mean much in a campaign. Chairman Hitchcock thinks so, apparently. He has chosen Victor Mason for his chief aide in the East and has made R. Victor Oulahan chief of the literary bureau.

Victor—victorious—see?

A real Hitchcockian touch.

The Healing Lather

For the first time in the history of shaving the two great skin healers Glycerine and Cocoanut Oil have been combined to form a shaving lather that not only softens the beard at once, without rubbing in with the fingers, but soothes the skin, cleans the pores and takes the place of the creams and lotions so necessary after using other lathering agents.

This new discovery is called

BERSET

Shaving Cream Soap

It works up with the brush into a fuller, creamier lather than soap, lies closer to the face, permitting a smoother shave without pulling or scraping, is a perfect antiseptic, and positively will not dry on the face.

An experience common with ordinary soaps and creams is that while you are shaving one side of the face you can feel the other side pucker and draw—the lather seems to be pulling the skin tight—and after shaving the skin feels dry and harsh if not actually sore and smarting. This is because the alkali contained in ordinary shaving soaps takes the natural oils from the pores and irritates the surface of the skin. Berset Shaving Cream Soap contains no free alkali to irritate the skin—on the contrary, it softens, heals and refreshes.

Berset Shaving Cream Soap is another of the shaving comforts of the Rubberset Company, manufacturers of the Rubberset Shaving Brush. Every user of this brush should try a tube of Berset Shaving Cream Soap, for the perfect brush and the healing lather insure you a luxurious shave.

Berset Shaving Cream Soap is put up in a collapsible tube, so that the last is as easy to use as the first, and it is never exposed to the air and dust.

For Shampooing, Berset Shaving Cream Soap will be found superior to anything you ever used. Leaves the scalp in perfect condition and the hair smooth and silky.

25 cents a tube at dealers'.

Sample tube sufficient for one month's shaving sent to any address on receipt of a 2 cent stamp to cover postage.

The Rubberset Co., Laboratories, 63 Ferry St., Newark, N.J.

Oddities and Novelties

OF EVERY-DAY SCIENCE

Photography Without a Camera

THE up-to-date photographer knows how to make pictures without a camera. He will take, for instance, some flowers, squeeze the juice out of them, and with it saturate a sheet of ordinary paper. When the paper is dry some sort of picture can be printed on it by exposing it to the sun beneath a negative.

Flower juice is a passable sensitizer. But paper itself is sensitive to light, and a sheet of it, placed in a printing frame with a negative in the usual fashion, will make a recognizable picture after a considerable exposure to the sun. The leaves of trees, at a pinch, may be utilized for a similar photographic purpose.

The usual method of copying a photograph is to take a picture of it with the camera, developing the plate in the ordinary way. But, if necessary, the camera may be entirely dispensed with. Put a photograph in a printing frame with a piece of sensitized paper, using it just as if it were a negative, and, after proper exposure to the sun for only a few minutes, a print will be obtained. This print, of course, will be a negative, and (after toning) it may be employed in exactly the same way for printing copies of the original picture.

It is not impossible, in the absence of apparatus, to improvise a camera out of a hat, by inserting a spectacle lens in the middle of the crown, and closing up the opening for the head with a piece of black cloth—a piece of sensitized paper being attached to the inner surface. Indeed, the lens might be dispensed with, a pinhole in the top of the hat admitting the light.

Photographers are ingenious folks. In proof of which fact it may be mentioned that, long before the days of telephotography, pictures four inches high were taken, at a distance of a quarter of a mile, of the statue on top of the Capitol dome at Washington, by arranging lenses in a big telescopic camera.

Alchemy in the Furnace-Room

THE notion of converting ordinary ashes into fuel by sifting them and sprinkling them with a dilute solution of rock salt and oxalic acid is said to have been originated by a Pennsylvania cobbler. Whether this be true or not, it is certain that the Board of Education of the city of New York is an enthusiastic advocate of the idea, which, being put into practice last year, saved during the winter, as claimed by the Supplies Committee, ten thousand tons of coal.

The method is to be continued. Engineers declare it a howling absurdity, and suggest that ink and red pepper would do just as well. They speak with bitter sarcasm of the fact that the Metropolitan Board of Education, "while teaching chemistry in its classrooms, is practicing alchemy in its furnace-rooms." The saving of ten thousand tons of coal, they aver, is attributable merely to a sudden access of carefulness on the part of school janitors, inspired by an official stirring up of interest in the problem of fuel-consumption.

Every now and then, somebody pops up with a plan for utilizing ashes as fuel by mixing them with something or other. Or, instead of ashes, some other supposedly worthless material may be recommended—powdered limestone for example. One recent inventor claims that an admixture of marble dust with coal in certain proportions enables the latter to give off twice as much heat in burning. Marble dust is carbonate of lime, and in some unexplained way, apparently, the carbon is supposed to augment the intensity of the flames. The combination is alleged to be very desirable for moulding into briquettes.

There is always some one who is trying to make something out of nothing. It seems to be an incurable human weakness. What could have been funnier than the dip into literal alchemy which was made by the United States Treasury not very long ago? In some way not easily explained, two men from Chicago, who claimed to have discovered a means whereby lead could be transmuted into gold, obtained (thanks to an introduction from an influential Congressman) an order from the Secretary of the Treasury directing the Chief Assayer, Mr. Whitehead, to allow the inventors to demonstrate their process in the laboratory of the Department.

Of course, the result was a total failure—which, as was inevitable, the gold-makers attributed to "unfair conditions" governing the test.

Hats Make Horses Hotter

HATS for horses are a delusion, from a humanitarian standpoint, judging from certain experiments recently conducted by a French scientist of eminence, the Baron Henry d'Anchald. He has taken the trouble to apply a series of thermometric tests, which showed that such headgear makes the animals hotter.

The experiments were made with three horses under varying conditions—at rest in shade and in sunshine, and trotting. A clinical thermometer was used to record the temperatures. In the shady open the mercury stood at seventy-nine degrees Fahrenheit during all of the trials.

It was found that under these conditions, when the horses were standing still in the sun, the temperature beneath their forelocks, if they were bareheaded, was eighty-six degrees. If, however, straw hats were put on the animals, the thermometers so adjusted rose to ninety-eight degrees; and, if they wore bonnets of canvas or other cloth, the temperature reached one hundred and three degrees.

The inference drawn was that the hat serves to inclose an empty space, in which the confined air is raised to a high heat. Hence the horse's head is much hotter than when left bare. Inasmuch as not only individuals but humane societies have interested themselves in affording such protection to the equine beast, the definite information on the subject furnished by Baron d'Anchald is of obvious practical usefulness.

Similar experiments with the same horses trotting in the sun (the mercury in the shade standing at seventy-nine degrees) showed that the temperature beneath the forelock of each bareheaded animal was eighty-three degrees. Beneath straw hats it was ninety-one degrees, and under cloth hats it rose to one hundred degrees Fahrenheit.

The Baron, in drawing his conclusions, argues that horses are much better off without hats or umbrellas. It is a better plan, in the country, to protect their heads with leafy boughs, and in the city to wet their foreheads frequently in hot weather.

Electricity Versus the Bottle

IN THE days of our grandmothers a brick heated in the oven and wrapped in cloths was the best available expedient for keeping the bed warm, and was commonly used for the comfort of sick people. Next in the progress of evolution came the bottle of hot water, accidents with which often caused serious scalds, the cork escaping. Then arrived the "warming-pan" of tinned iron, which in its day, thirty years or so ago, was regarded as the acme of luxury. It held half a gallon or so of hot water, and was curved on one side to fit the body of the person for whose benefit it was applied.

This contrivance now seems to us exceedingly primitive, and its place has been taken by the water-bottle of India-rubber, without which the equipment of no sick-room is deemed complete. Yet the latter seems likely to be driven out before long, at least for many uses, by the electric warming-pad, which is made of Canton flannel, or other such material, and lined with a network of small wires. All that is necessary is to attach it to an ordinary electric-light wire, and it is ready.

By a switch the degree of heat may be adjusted. If the sick person is too cold, a turn of the switch will raise the temperature of the pad. If too warm, on the other hand, it may be lowered.

Such pads are beginning to be used in hospitals. Large ones are even spread upon the operating table. If the patient shows signs of collapse, the pad is instantly wrapped around him, to keep off the chill that signals the approach of Death.

IN CAMP
WITH INDESTRUCTIBLE RECORDS

Their hardy nature is just the thing for a camping trip. Wherever they go they carry with them a tone of wholesome cheerfulness. They tell clever stories, sing catchy songs, and supply a full band or orchestra for your entertainment. You will find Indestructible Records the best company in the world. Beautifully mellow in tone, they surpass any other phonograph record, because by our exclusive process every record is an exact reproduction of the original upon which the music is first recorded.

They won't break—they won't wear out! They are convenient to handle

INDESTRUCTIBLE RECORDS FOR SEPTEMBER

834 Hurrah, Boys
835 Viscount Nelson
836 Medley of Straight Jigs, No. 2
837 United States Forever
838 Dill Pickles
839 I Was Rousing Along
840 Estellita
841 O'Brien Has No Place to Go
842 A Warrior Bold
843 Stop Making Faces at Me
844 Childhood
845 Knights of Columbus
846 Every Mother's Son There Sang "The Wearing of the Green"
847 Tipperary
848 Wishes
849 Chimmie and Maggie at the Table d'Hote Dinner
850 Lead, Kindly Light
851 Fool Questions
852 When You Were a Pinafore
853 It's Only Me in My Night Dress
854 In the Right Church but in the Wrong Pew
855 The Smiler
856 My Starlight Maid
857 Down in Georgia on Camp-meeting Day

Any INDESTRUCTIBLE RECORD Anywhere in the United States 35c each Durability Guaranteed

Do not fail to hear our records with the New Reproducer, which wonderfully increases the volume and at the same time gives a smoothness and purity of tone never before obtained from the cylinder record. Send for our special Reproducer booklet.

CAUTION: THIS REPRODUCER WILL INJURE WAX RECORDS

Indestructible Phonographic Record Co.
268 HAMILTON STREET ALBANY, NEW YORK, U. S. A.

THE PERFECT Auto and Carriage Washer

Price $1.75 Del'd
Extra Top 50c Del'd
Patent applied for

This washer is a great improvement over other makes. The loose ends of mop are locked fast. The mop-yarn top will outlast six sponges. Will wash sideways between spokes of under fenders. Indispensable for Garages, Liveries, Laundries or private owners. Sent prepaid on receipt of price. Money back if not satisfactory.

Send for circular. Agents Wanted

Long & Mann Co., 520 Graves St., Rochester, N. Y.

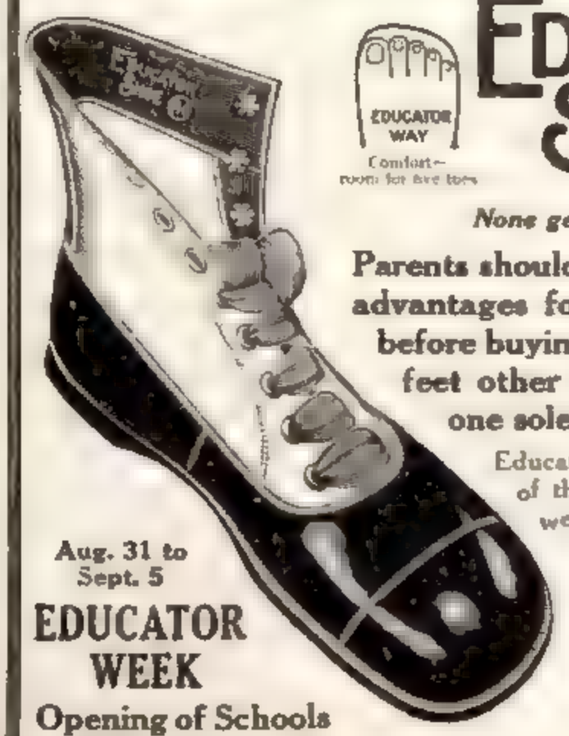
No mixing

Ready to use. Rats and mice leave cheese and go out in the open air seeking water. Dry clean; never leaves a mark

Rat Bis-Kit

At Druggists 15 cts. a box. If yours hasn't it send us 25 cents for one box or 60 cents for three boxes, delivered prepaid.

THE RAT BISCUIT CO.



EDUCATOR SHOE

EDUCATOR WAY Comfort—room for five toes

WRONG WAY Discomfort—pinched toes.

None genuine without this sole brand

Parents should carefully investigate the many advantages found in EDUCATOR SHOES before buying and putting on their children's feet other kinds of shoes made with but one sole object—the profit.

Educator Shoes are made for every member of the family—infants to parents. They look well, they fit, they are comfortable, and they wear longer. Prices according to size.

Sold generally by best dealers. Made by

RICE & HUTCHINS WORLD SHOEMAKERS FOR THE WHOLE FAMILY

10 and 12 High St., Boston, Mass.

Aug. 31 to Sept. 5
EDUCATOR WEEK
Opening of Schools
Special Display by Dealers

HAMMERING STONE

(Continued from Page 13)

"Tell Mr. Stone that I am busy, but that I will receive him in fifteen minutes," he directed, whereupon Mr. Brown, appreciating the joke, grinned still more expansively and withdrew.

Bobby, as calmly as he could, went on with his perusal of the Bulletin. To deny that he was somewhat tense over the coming interview would be foolish. Never had a quarter of an hour dragged so slowly, but he waited it out, with five minutes more on top of it, and then he telephoned to Brown to know if Stone was still there. He was relieved to find that he was.

"Tell him to come in," he ordered.

If Stone was inwardly fuming when he entered the room he gave no indication of it. His heavy face bore only his habitually sullen expression, his heavy-lidded eyes bore only their usual sombreness, his heavy brow had in it no crease other than those that time had graven there. With the deliberateness peculiar to him he planted his heavy body in a big armchair opposite to Bobby, without removing his hat.

"I don't believe in beating around the bush, Mr. Burnit," said he, with a glance over his shoulder to make sure that the door was closed. "Of course you're after something. What do you want?"

Bobby looked at him in wonder. He had heard much of Stone's bluntness, and now he was fascinated by it. Nevertheless, he did not forget his own viewpoint.

"Oh, I don't want much," he observed pleasantly, "only just your scalp; yours and the scalps of a few others who gave me my education, from Silas Trimmer up and down. I think one of the things that aggravated me most was the recent elevation of Trimmer to the chairmanship of your waterworks commission. Trivial as it was, this probably had as much to do with my sudden determination to wipe you out, as your having the Brightlight's poles removed from Market Street."

Stone laid a heavy hand easily upon Bobby's desk. It was a strong hand, a big hand, brown and hairy, and from the third pudgy finger glowed a huge diamond.

"As far as Trimmer is concerned," said he, quite undisturbed, "you can have his head any minute. He's a mutt."

"You don't need to give me Mr. Trimmer's head," replied Bobby, quite as calmly. "I intend to get that myself."

"And as for the Brightlight," continued Stone as if he had not been interrupted, "I sent Sharpe over to see you about that this morning. I think we can fix it so that you can get back your two hundred and fifty thousand. The deal's been worth a lot more than that to the Consolidated."

"No doubt," agreed Bobby. "However, I'm not looking, at the present moment, for a sop to the Brightlight Company. It will be time enough for that when I have forced the Consolidated into the hands of a receiver."

Stone looked at Bobby thoughtfully between narrowed eyelids.

"Look here, young fellow," said he presently. "Now, you take it from me, and I have been through the mill, that there ain't any use holding a grouch. The mere doing damage don't get you anything unless it's to whip somebody else into line with a warning. I take it that this ain't what you're trying to do. You think you're simply playing a grouch game, table stakes; but if you'll simmer down you'll find you've got a price. Now, I'd rather have you with me than against me. If you'll just say what you want I'll get it for you if it's in reach. But don't froth. I've cleaned up as much money as your daddy did, just by keeping my temper."

"I'm going to keep mine, too," Bobby informed him quite cheerfully. "I have just found that I have one, and I like it."

Stone brushed this triviality aside with a wave of his heavy hand.

"Quit kidding," he said, "and come out with it. I see you're no piker, anyhow. You're playing for big game. What is it you want?"

"As I said before, not very much," said Bobby. "I only want to grind your machine into powder. I want to dig up the rotten municipal control of this city, root and branch. I want to ferret out every bit of crookedness you have been concerned in and every bit that you have caused. I want to uncover every man, high or low, for just what he is, and I don't care how well protected he is nor how shining his reputation, if he's concerned in a crooked deal I'm going after him——"

"There won't be many of us left," Stone interrupted with a smile.

"—I want to get back some of the money you have stolen from this city," continued Bobby; "and I want, last of all, to drive you out of this town for good."

Stone arose with a sigh.

"This is the only chance I'll give you to climb in with the music," he rumbled. "I've kept off three days, figuring out where you were leading to and what you were after. Now, last of all, what will you take to call it off?"

"I have told you the price," said Bobby.

"Then you're looking for trouble and you must have it, eh?"

"I suppose I must."

"Then you'll get it," and without the sign of a frown upon his brow Mr. Stone left the office.

IV

THE next morning things began to happen. The First National Bank called up the business office of the Bulletin and ordered its advertisement discontinued. Not content alone with that, President De Graff called up Bobby personally, and in a very cold and dignified voice told him that the First National was compelled to withdraw its patronage on account of the undignified personal attacks in which the Bulletin was indulging. Bobby whistled softly. He knew De Graff quite well; they were, in fact, upon most intimate terms, socially.

"I should think, De Graff," Bobby remonstrated, "that of all people the banks should be glad to have all this crookedness rooted out of the city. As a matter of fact, I intended shortly to ask your cooperation in the formation of a citizens' committee to insure honest politics."

"I really could not take any active part in such a movement, Mr. Burnit," returned De Graff, still more coldly. "The conservatism necessary to my position forbids my connection with any sensational publicity whatsoever."

An hour later, Crone, the advertising manager, came up to Bobby very much worried, to report that not only the First National but the Second Market Bank had stopped their advertising, as had Trimmer & Co. and another of the leading dry-goods firms.

"Of course," said Crone, "your editorial policy is your own, but I'm afraid that it is going to be ruinous to your advertising."

"I shouldn't wonder," admitted Bobby dryly, and that was all the satisfaction he gave Crone; but inwardly he was somewhat disturbed.

He had not thought of the potency of this line of attack. While he knew nothing of the newspaper business, he had already surmised that the profit was in the advertising. He sent for Jolter.

"Ben," he asked, "what is the connection between the First National and the Second Market Banks and Sam Stone?"

"Money," said the managing editor promptly. "Both banks are depositories of city funds."

"I see," said Bobby slowly. "Do any other banks enjoy this patronage?"

"The Merchants' and the Planters' and Traders' hold the county funds, which are equally at Stone's disposal."

Bobby heard this news in silence, and Jolter, after looking at him narrowly for a moment, added:

"I'll tell you something else. Not one of the four banks pays to the city or the county one penny of interest on these deposits. This is well known to the newspapers, but none of them has dared use it."

"Go after them," said Bobby.

"Moreover, it is strongly suspected that the banks pay interest privately to Stone, through a small and select ring in the courthouse and in the city hall."

"Go after them."

"I suppose you know the men who will be involved in this," said Jolter.

"Some of my best friends, I expect," said Bobby.

"And some of the most influential citizens in this town," retorted Jolter. "They can ruin the Bulletin. They could ruin any business."

A Genuine THOR Motorcycle for only $130—if you Act at Once

This is your chance to get a genuine $185 *1907 THOR* Motorcycle at little more than the cost of an ordinary bicycle.

The *THOR* will carry you skimming over the country roads alongside the best automobiles—it will take you 5 to 50 miles an hour.

It will do all that any Motorcycle will do—and more than most. And it will wear better and cost less to keep up.

But if you want to get the benefit of this limited small-price offer, you must ACT, and AT ONCE.

The *THOR* Motorcycle, which for a limited time you can get for only $130, is an absolutely new unused machine just out of our factory.

It is our famous 1907 model, of which there are today thousands in actual, practical, satisfactory every day use.

It is completely equipped. It is in every specification our famous 1907 model—thoroughly tested before shipment.

The engine is our regular *THOR* 2¼ horse-power motor. It will carry you over the worst hills and take you from 5 to 50 miles an hour whenever you want to go that fast.

The gasoline tank holds enough fuel to carry you 100 miles without refilling.

The lubricating system is operated by power, giving positive lubrication the same as the best automobiles.

This machine has the Aurora Spring Fork, the Thor Coaster Brake, the Thor Carburetor, Thor Sprockets, and the best saddles, tires and other accessories that we can obtain from the foremost manufacturers.

It has the Thor double grip control—the surest and best ever devised.

It is fully equipped with batteries, battery case, and a standard spark coil.

It has a wheel base of 52½ inches. It weighs 120 pounds fully equipped. It is finished in the best *THOR* style.

This *1907 THOR* has always sold for $185. After this special offer is withdrawn it will again be sold for $185.

This $130 price is just a limited opportunity.

The only reason why this price is made so low is that we want to clean out our present stock before next season's rush begins.

Please remember that every *THOR* Motorcycle is protected by the broadest, strongest guarantee—a guarantee that covers materials and workmanship—a guarantee that is absolute.

And back of this guarantee is a million dollar concern. Reference: Dun or Bradstreet, or The Commercial National Bank of Chicago.

Simply send the coupon, or call at our Chicago Store, 1470 Michigan Avenue. But be prompt, for the offer may be withdrawn without notice.

Aurora Automatic Machinery Company

Demonstrations daily at our Chicago store—1470 Michigan Avenue

This Coupon Saves You $55 00 Cash

Aurora Automatic Machinery Co., Aurora, Ill.

I accept your special offer of a genuine $185 *THOR* Motorcycle at $130, and enclose $10 as part payment. The balance of $120 I agree to pay on delivery of the Motorcycle.

Name

Address

Note—All shipments are f. o. b. Aurora, Ill.

S. E. P.

"The thing's crooked, isn't it?" demanded Bobby

"As a dog's hindleg."

"Go after them, Jolter!" Bobby reiterated. Then he laughed aloud. "De Graff just telephoned me that 'the conservatism of his position forbids him to take part in any sensational publicity whatsoever.'"

Comment other than a chuckle was superfluous from either one of them, and Jolter departed to the city editor's room, to bring joy to the heart of the staff.

It was "Bugs" Roach who scented the far-reaching odor of this move with the greatest joy.

"You know what this means, don't you?" he delightedly commented. "A grand jury investigation. Oh, listen to the band!"

Before noon the Merchants' and the Planters' and Traders' Banks had withdrawn their advertisements.

At about the same hour a particularly atrocious murder was committed in one of the suburbs. Up in the reporters' room of the police station, Thomas, of the Bulletin, and Graham, of the Chronicle, were indulging in a quiet game of whist with two of the morning newspaper boys, when a roundsman stepped to the door and called Graham out. Graham came back a moment later after his coat, with such studied nonchalance that the other boys, eternally suspicious as police reporters grow to be, looked at him narrowly, and Thomas asked him, also with studied nonchalance:

"The candy-store girl, or the one in the laundry office?"

"Business, young fellow, business," returned Graham loftily. "I guess the Chronicle knows when it has a good man. I'm called into the office to save the paper. They're sending a cub down to cover the afternoon. Don't scoop him, old man."

"Not unless I get a chance," promised Thomas, but after Graham had gone he went down to the desk and, still unsatisfied, asked:

"Anything doing, Lieut.?"

"Dead as a door-nail," replied the lieutenant, and Thomas, still with an instinct that something was wrong, still sensitive to a certain suppressed tingling excitement about the very atmosphere of the place, went slowly back to the reporters' room, where he spent a worried half-hour.

The noonday edition of the Chronicle carried, in the identical columns devoted in the Bulletin to a further attack on Stone, a lurid account of the big murder; and the Bulletin had not a line of it! A sharp call from Brown to Thomas, at central police, apprised the latter that he had been "scooped," and brought out the facts in the case. Thomas hurried downstairs and bitterly upbraided Lieutenant Casper.

"Look here, you Thomas," snapped Casper; "you Bulletin guys have been too fresh around here for a long time."

In Casper's eyes—Casper with whom he had always been on cordial joking terms—he saw cruel implacability, and, furious, he knew himself to be "in" for that most wearing of all newspaper jobs—"doing police" for a paper that was "in bad" with the administration. He needed no one to tell him the cause. At 3:30, Thomas and Camden, who was doing the city hall, and Greenleaf Whittier Squiggs, who was subbing for the day on the courts, appeared before Jim Brown in an agonized body. Thomas had been scooped on the big murder, Camden and G. W. Squiggs had been scooped, at the city hall and the county building, on the only items worth while, and they were all at white heat; though it was a great consolation to Squiggs, after all, to find himself in such distinguished company.

Brown heard them in silence, and with great solemnity conducted them across the hall to Jolter, who also heard them in silence and conducted them into the adjoining room to Bobby. Here Jolter stood back and eyed young Mr. Burnit with great interest as his two experienced veterans and his ambitious youngster poured forth their several tales of woe. Bobby, as it became him to be, was much disturbed.

"How's the circulation of the Bulletin?" he asked of Jolter.

"Five times what it ever was in its history," responded Jolter.

"Do you suppose we can hold it?"

"Possibly."

"How much does a scoop amount to?"

"Well," confessed Jolter, with his eyes twinkling, "I hate to tell you before the boys, but my own opinion is that we know it and the Chronicle knows it and Stone knows it, but day after to-morrow the public couldn't tell you on its sacred oath whether it read the first account of the murder in the Bulletin or in the Chronicle."

Bobby heaved a sigh of relief.

"I always had the impression that a 'beat' meant the death, cortège and cremation of the newspaper that fell behind in the race," he smiled. "Boys, I'm afraid you'll have to stand it for a while. Do the best you can and get beaten as little as possible. By the way, Jolter, I want to see you a minute," and the mournful delegation of three, no whit less mournful because they had been assured that they would not be held accountable for being scooped, filed out.

"What's the connection," demanded Bobby, the minute they were alone, "between the police department and Sam Stone?"

"Money!" replied Jolter. "Chief of Police Cooley is in reality chief collector. The police graft is one of the richest Stone has. The rake-off from saloons that are supposed to close at one and from crooked gambling joints and illegal resorts of various kinds, amounts, I suppose, to not less than two thousand dollars a week. Of course, the patrolmen get some, but the bulk of it goes to Cooley, who was appointed by Stone, and the biggest slice of all goes to the Boss."

"Go after Cooley," said Bobby. Then suddenly he struck his fist upon the desk. "Great Heavens, man!" he exclaimed. "At the end of every avenue and street and alley that I turn down with the Bulletin I find an open sewer."

"The town is pretty well supplied," admitted Jolter. "How do you feel now about your policy?"

"Pretty well staggered," confessed Bobby; "but we're going through with the thing just the same."

"It's a man's-size job," declared Jolter; "but if you get away with it the Bulletin will be the best-paying piece of newspaper property west of New York."

"Not the way the advertising's going," said Bobby, shaking his head and consulting a list on his desk. "Where has Stone a hold on the dry-goods firm of Rolands & Crawford?"

"They built out circular show windows, all around their big block, that extend illegally upon two feet of the sidewalk."

"And how about the Ebony Jewel Coal Company?"

"They have been allowed practically to close up Second Street, from Water to Canal, for a dump."

Bobby sighed hopelessly.

"We can't fight everybody in town," he complained.

"Yes, but we can!" exclaimed Jolter with a sudden fire that surprised Bobby, since it was the first the managing editor had displayed. "Don't weaken, Burnit! I'm with you in this thing, heart and soul! If we can hold out until next election we will sweep everything before us."

"We will hold out!" declared Bobby.

"I am so sure of it that I'll stand treat," assented Mr. Jolter with vast enthusiasm, and over an old oak table, in a quiet place, Mr. Jolter and Mr. Burnit, having found the sand in each other's craws, cemented a pretty strong liking.

Editor's Note—This is the fifth of the Bobby Burnit stories. It will be concluded in next week's issue.

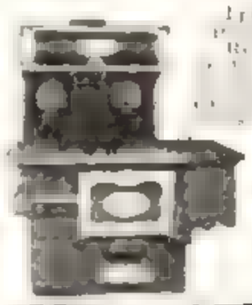
Don't Buy a Stove or Range Until You First See

How Much You Save By Getting

"A Kalamazoo Direct to You"

We sell to you, direct from the factory, at actual factory prices

On 360 Days Approval Test— We Pay the Freight



Send Postal For Catalogue

For Coal and Wood Stoves and Ranges, No. 152

For Gas Stoves and Ranges, No. 808

Fully describing more than 300 sizes and styles of Coal and Wood Ranges, Gas Stoves and Heaters, Wood Heaters, Base Burners, Steel Ranges, Hot Blast Heaters, Oil Stoves, Etc. I know you think of buying

William Thompson, Vice-Pres. and Gen. Mgr.

KALAMAZOO STOVE CO., Mfrs. Kalamazoo, Mich.

STALL'S BOOKS

SELF AND SEX SERIES

These books are addressed to those who recognize that knowledge is power that ignorance is a curse that success and usefulness are dependent upon an intelligent understanding of the purpose of sex

4 BOOKS TO MEN

By Sylvanus Stall, D. D.

What a Young Boy Ought to Know
What a Young Man Ought to Know
What a Young Husband Ought to Know
What a Man of Forty Five Ought to Know

4 BOOKS TO WOMEN

What a Young Girl Ought to Know
What a Young Woman Ought to Know
What a Young Wife Ought to Know
What a Woman of Forty Five Ought to Know

$1.00 per copy, post free. Table of contents free.

The Vir Publishing Co.

544 Church Building, 15th and Race Streets

Philadelphia, Penna.

MENNEN'S BORATED TALCUM TOILET POWDER

A Positive Relief For Prickly Heat, Chafing, and Sunburn, and all afflictions of the skin.

Removes all odor [illegible] Send everywhere

GERHARD MENNEN COMPANY, Newark, N. J.

HOME STUDY

The University of Chicago

The U of C Div C Chicago Ill

PATENTS

WILLIAM T JONES

SOLICITOR AND COUNSEL

1111 F Street, Washington, D. C.

WEDDING INVITATIONS

100 for $3.50

Announcements, etc., engraved and printed.

Visiting Cards

THE ESTABROOK PRESS, 131 E Tremont St Boston, Mass.

FEET HURT? The INSTEP INSOLE relieves [illegible] tired feet, corns, bunions, callosities [illegible] run-over shoes. Men and women [illegible] Send [illegible] and 4c. stamp for circular.

INSTEP INSOLE CO., 27 Alexander Pl., Chicago

BADGES, BANNERS, BUTTONS, UNIFORMS, FLAGS.

The Pettibone Bros. Mfg. Co., Cincinnati, Ohio, Dept 0

If you'll exchange One Dollar with your nearest dealer for a box full of WUNDERHOSE—we'll exchange any pair of them that dares break through in the heel, toe or sole within three months of solid good wear.

Takes more than confidence to make this offer—takes quality—and we know it's there. Besides the wear assurance—there's a fit assurance—and a dye assurance—and another assurance that the same low price can't buy as good as WUNDERHOSE and that more price could hardly buy better

Men's WUNDERHOSE in Black, Tan, Navy, and Grey, and Black with White Feet, $1 per box of four pairs.

[illegible] WUNDERHOSE Black or Tan, $1 per box of four pairs

[illegible] Black or Tan WUNDERHOSE, $1 per box [illegible]

If your dealer hasn't WUNDERHOSE, send us $1.00 direct—state size and color and we will see that you are supplied. Free Booklet, "From Field to Feet." Send for it

CHATTANOOGA KNITTING MILLS, Manufacturers, CHATTANOOGA, TENN.

THE SCIENCE OF THE PAY ENVELOPE

(Concluded from Page 11)

partly by demonstration that nothing in this new-fangled scheme is going to hurt him, and partly by more money in *his* pay envelope. He gets the latter in the shape of a bonus on the output of his department. But if he has a man under him whose work doesn't come up to a good average, part of the foreman's bonus is deducted. He isn't permitted to discharge that man for such a cause, however. If a system of this sort can't take average labor as it finds it, little could be expected from it in a country so harassed for labor as this. So the foreman spends time at the bench of the man who doesn't seem to catch the idea, and coaches him, and brings him up to standard. He does this because it means money in his own pay envelope.

The type of superintendent who can install such a system and keep it running is a fine specimen of mankind.

Again and again have profound theorists, lacking this personal element, worked out such systems on paper. They were perfect systems—so perfect that, like the Universe as explained in a well-known theory, they needed only an initial push to set them going forever. But nobody came along and pushed. So they never went.

Listen to the opinion of a superintendent who can apply that push.

The way to deal with organized labor, he holds, is to take labor's organization as you find it, as something already systematized for you, and carry it further with a better organization of your own.

He says he would rather put new ideas before the average labor union than the average board of directors. Likewise, that labor trouble isn't always a disease. Sometimes it's just a symptom of disease in the brain of the business.

Another superintendent of this sort has interesting "stunts."

At his factory, for instance, there has always been a certain chair in his office in which nobody but a workman is permitted to sit. All through the shops, among a thousand men, it is known that any workman has the right to walk into his office with a grievance, and sit in that chair and talk it over with the superintendent.

The Impulse of the Personal Element

This is the superintendent who became president of his company. To-day much of his time is passed at the executive office in New York. But every afternoon, sharp at four, Eastern time, his office is connected with the factory out West by long-distance telephone. Business first. Foremen report one by one, and at each end of the line is an extra earpiece for a stenographer to take down what is said. After that, he talks to men. Perhaps some chap dropped a casting on his foot recently. This is his first day outdoors. So they get him round to the 'phone that afternoon and the Old Man asks him, "How's the foot healing, Bill?" and tells him he mustn't do it again.

Wage-systems based on the new principle have been applied very widely in machine-shops, each installation adapted to fit conditions, and each with its own special features. A very reasonable objection to them was that of the small employer, who said: "Oh, yes, that's all very well for a big company, with plenty of capital and thousands of men, but how can a little fellow like me adopt it?" Nevertheless, some of the best results have been obtained in small establishments by the use of systems of time-cards that distribute all the work of record-making about the different departments. The clerical work of a large wage-system of this new type is rather complex, as expert estimators and systematizers are now employed to perform the "theory" operations for a whole factory.

Under any piece-work system, of course, there is always the chance that too high a price will have been set on some special job, thus enabling a few workmen to earn abnormal wages. This causes discontent among their fellow-workers, and also dissatisfaction among themselves when their earnings go back to normal again. Cutting prices in such circumstances is always dangerous. Therefore the system is usually graded in a way that pays the workman a high bonus for small savings of time, and a proportionate decrease as saving runs into larger ratios. Thus the system furnishes automatic checks and safeguards.

From this bonus plan the principle is being carried up into systems where a single workman or a group of workmen meet the employer or superintendent, agree upon a price for carrying out certain work, and do it on contract. A Pacific Coast shipyard has tested this plan. A number of experimental contracts were given out in this way, and it was found that the men not only had good judgment in estimating what a job was worth in wages, but also in eighteen cases the time in which they finished contracts, compared with hour-wages, left them a good margin of profit. At the same time the employer got his labor at a reasonable, known cost, and there was naturally no restriction of output.

Somebody has pointed out that most labor battles are fought, not between employers and employees, but between the employer's wage-earners and salary-earners.

Most of the improvements now being made in wage-systems and other labor conditions, on the contrary, are due to the fact that the employer is dealing directly with his men.

Lately a new middleman has come into the labor situation—the engineer.

The Engineer Tackles the Problem

Sometimes, he is a civil engineer, and again a mechanical or electrical man. Perhaps, his diploma is yet more recent, and he has one of the new specialties, like illuminating or refrigerating.

But, wherever he goes in an executive position, the engineer can be counted upon to tackle the labor problem. He sees that this department in shop or factory still runs on an old-fashioned rule-of-thumb plan, whereas everything else has been systematized. He refuses to believe that the problem is unsolvable, and goes at it as something to be studied and brought into scientific order.

The engineer, for instance, has been largely instrumental in killing that evil of the contracting business, the pay-check. Hundreds of labor battles have been fought to abolish this unjust instrument for sweating employees. As the contracting business has passed from the control of small men and into the hands of large firms, with engineer-superintendents, the verdict of the latter has almost invariably been an indorsement of this protest of the workers. To-day the pay-check on contracting work is a thing of the past in the cities, though it is said to be growing where small jobs are done with unskilled, unorganized laborers.

The evils of the pay-check are many. During the recent money stringency, when many factories paid by check temporarily, their men objected because, as merchants had to take them on account, it gave the latter knowledge of what operatives were earning. The man who draws ten to twenty dollars a week likes to keep his income confidential, just as much as the millionaire.

With rough labor on an excavating job the pay-check evil is of a less sentimental nature, being usually plain usury. Frequently, the contractor who pays thus is in league with the saloon-keeper who cashes the checks, or will cash them himself at a high rate of interest. He maintains a boarding-shack where men are charged for meals that they eat at home, and a "slop-chest" sort of store where he sells them clothing at high prices. His pay-roll is made up so that checks are handed out but twice a month, and he always holds a reserve of four or five days as a leverage by which to control employees. If a man is discharged he gets a check that is really a promissory note, cashable next pay-day. This may be ten days off. But the saloon-keeper will turn it into money at interest rates figured for each day the check has to run, amounting to twenty or thirty per cent.

But the engineer, bringing sense and arithmetic into the contracting industry, has driven this type of employer to the small job away up in the mountains.

This subject of wage-systems to-day represents a new movement in industry as widespread as it is quiet, and as effective as it is rational. For many labor disputes, reduced to the bare premises, were nothing more than efforts of workers to fix a just wage-system from their own point of view. If the labor problem is complex the wage problem is more so. It is one of the most hopeful signs of the times that employers are setting about its adjustment.

After Dessert

Serve

NABISCO
SUGAR WAFERS

with conversation and laughter with or after dessert.

In ten cent tins
Also in twenty-five cent tins

Festino
Another dessert confection in the form of an almond enclosing a kernel of delicious cream.

NATIONAL BISCUIT COMPANY

PATENTS SECURED OR FEE RETURNED
Free report as to Patentability. Illustrated Guide Book, and List of Inventions Wanted, sent free.
EVANS, WILKENS & CO., WASHINGTON, D. C.

PATENTS that PROTECT
Our 8 books for inventors mailed on receipt of 6 cts. stamps.
R. S. & A. B. LACEY, Washington, D. C. Estab. 1869

Seven Human Life Stars

Lewis Libby Phillips Morris Belasco Patterson Russell

A Celebrity is born every day. Who is he? What is his story? How does he live, work, play? What about his family, his friends, his fancies? Read HUMAN LIFE, its exclusive field is interesting articles about people. HUMAN LIFE marshals the world's celebrities of the day together and gives them to you in picture and story as under a field glass.

HUMAN LIFE is absolutely original. There is no other magazine dealing with people exclusively. It is filled from cover to cover with stories and pictures of people and will keep the entire family posted as to the actions and doings of all the prominent people of the entire world.

It has the greatest writer in this country of vigorous, virile, pungent, forceful, piquant English as its editor-in-chief, Alfred Henry Lewis, the caustic contributor to THE SATURDAY EVENING POST, Cosmopolitan, Success and many other representative periodicals; the author of "The President," "The Boss," "Wolfville," "Andrew Jackson," and other books of story and adventure, every one scintillating with strenuous life. Mr. Lewis's fingers are upon the public pulse; he knows what the public wants, and he gives them running-over measure. HUMAN LIFE is up-to-date in its fresh, original matter from the best authors and best artists, and filled to overflowing with human interest.

You will find the great and the almost great, the famous and sometimes infamous, described in HUMAN LIFE, with a knowledge of their little humanities that is engrossing.

HUMAN LIFE has a peculiar style and method of its own, which gets the reader into intimate relation with the subject written about. It may be said here, on these pages, you almost meet the people. You get them at close range, "off the stage," as it were; you see all their little mannerisms and peculiarities, and you hear them tell good anecdotes; you laugh with them, you find out about their homes and hobbies and children and "better halves."

Among the well known writers of the day who contribute to HUMAN LIFE are Charles Edward Russell, Vance Thompson, Upton Sinclair, David Graham Phillips, Elbert Hubbard, Brand Whitlock, David Belasco, Clara Morris, Ada Patterson, Laura Jean Libby, Nanon Tobey and many others.

HUMAN LIFE is unique in that its principal aim is to tell truthful, fascinating, live, up-to-date human tales about real human people—rich people—poor people—good people—bad people—people who have accomplished things—people who are trying to accomplish things—people you want to know about—people that everybody wants to know about.

HUMAN LIFE gives you the intimate knowledge of what such people have done—are doing—what they say—how and where they live and lots of first-hand information that you cannot find elsewhere.

HUMAN LIFE is a great big magazine, printed on fine paper with colored covers and well illustrated, a magazine well worth $1.00 a year. HUMAN LIFE has a circulation of over 200,000 copies a month. If we can get you to read HUMAN LIFE for three months we believe we can make you a subscriber for life.

Read the following introduction offer:

Three Months for 10c

Won't you use this Coupon to-day?

Human Life Publishing Company,
87 Southgate Bldg., Boston, Mass.

Enclosed find 5 two-cent stamps, 10c, for which send HUMAN LIFE for three months commencing with the next number.

Name_____

P. O. Box or Street_____

Town or City_____ State_____

BRAINS THAT MAKE MILLIONS

(Concluded from Page 9)

were superior to those produced when outside blood was injected into his herd. While most families of hogs succumb under close inbreeding, Mr. Gentry's hogs are not losing their vigor but are increasing their supremacy in Berkshire porkdom, as evidenced in the showring and in prices received at sales of pure-bred hogs. His own herd, and herds which have sprung from his stock, have long led in state, national and international shows.

One of America's brightest stunts in breeding was accomplished by John Dryden, when Minister of Agriculture of Ontario, as an outgrowth of his effort to gain in England a large market for Canadian pork. He provided a winter show at Guelph, where he offered prizes for carcasses of bacon hogs, to be judged by slaughterers who cater to the British trade for special Canadian bacon. The Yorkshires and Tamworths were chosen as bases and soon special breeds of bacon hogs were developed. And now Canada has a very profitable British market for special brands of bacon, with long sides of uniform thickness with alternating layers of fat and lean.

In Colorado Professor Carlyle and Mr. Grubb, with help from the United States Department of Agriculture, are starting to breed the "Colorado carriage horse." With a basis of chosen males and females of American trotters they have begun the effort to implant on Colorado's vast horse-raising area a type of horse peculiarly fitted both for carriage and for heavy driving vehicles. As yet the nucleus of the new breed is on the agricultural college farm, but the ranchmen of Colorado, presumably, soon will want coöperative connection with the enterprise, so that they may aid in the creative work of making the new type and share the profits of producing large numbers for the ever-growing domestic and foreign markets for large, beautiful, fine-acting and enduring drivers.

Building Up the Driving Horse

The late Senator Proctor and Mr. Battel, of Vermont, in a similar movement under the auspices of the State Experiment Station and the United States Department of Agriculture, have started to establish a renaissance of the Vermont Morgan horse. A valuable college farm herd is already being built up. When the virile Vermont farmer really gets aroused he will be ready to coöperate in bringing back to Vermont the best blood of this very staunch breed of driving horses. He will want to make of its native State a permanent source of the highest type of breeding stock, and of natty teams for practical use, as by families, physicians and others who want beauty, strength, intelligence, courage and great endurance, coupled with that kindly disposition which gives the companionship the horseless carriage can never supply.

A prominent place in American breeding was earned by John Wallace, who wrested the records of the forming breed of American trotters from the jockeying of the race-track, and through a brave and determined fight covering years of struggle put this class of horses on a basis of performance records and established it as the great American breed of horses. It was he who showed that the imported thoroughbred or running horse, Messenger, was the potent sire whose blood furnished the first basis of this trotting branch of a great breed of horses.

Decades afterward, when Babcock, of the Wisconsin Agricultural Experiment Station, had invented his test with which easily to determine the richness of milk in butter fat, breeders of cows adopted Wallace's plan of performance records. Now, the best cows of all the leading dairy herds are tested; and plans are rapidly maturing under which the breeding efficiency of all remarkable dairy dams and dairy sires will be tested and recorded as comprehensively as we now test the breeding power of mother plants of wheat in "centgener plots" or of corn in "ear-to-row" tests. Testing for performance records is spreading. Scientific abattoirs are multiplying at our experiment stations, where the breeding values of meat-producing animals and fowls are being determined on the block. The difficulties of making centgener breeding tests are fading away before scientific effort in case of breeds designed economically to produce meat, wool, eggs and work, just as Wallace's efforts in trotting horses, or the wheat breeder's efforts in testing the breeding value of parent plants, cleared up testing for breeding power in their respective breeds or varieties. The conservative breeder who has depended too exclusively on outside appearances and on records of families of animals achieved in the sales ring or in the livestock show needs to build up a faith in the new movement to prove breeding powers scientifically: for example, determine the breeding value of the parent by taking the average value of the progeny.

Improving the Breed on the Home Farm

Under the leadership of the American Breeders' Association, advantage is being taken of the negative results of those who have made mistakes in distributing plants and animals, and a plan called "circuit breeding" is being worked out to create and disseminate new breeds or sub-breeds of animals. In harmony with the suggestions of that association, the Minnesota Experiment Station and the United States Department of Agriculture have inaugurated a breeding "circuit" for breeding a special strain of Shorthorn cattle. Professor Andrew Boss, as leader, has organized a coöperative association of breeders of this special type of Shorthorn cattle which combines milk giving and beef production, as breeds of chickens combine egg and meat production, or as most breeds of sheep combine the production of wool and mutton. The station and the department divide evenly the salary and expenses of a circuit superintendent. He travels among twenty or more circuit breeders to aid them in breeding their herds, also to find where the coöperating breeders can purchase the best foundation stock to be secured in this country, or even abroad. In return for this public aid the coöperating breeders agree to work under the rules of a board of three, consisting of a representative each of the coöperative association, of the station and of the department. Each coöperator signs a bond to own and breed at least five females and one male of type approved by the board, and to feed and manage them in accordance with the will of the board; to keep all the best animals in the circuit permanently, and to sell stock of the first class only to other members of the association. Animals not chosen to breed in the circuit may be registered in the national register for this breed and sold to outside breeders of pure-bred cattle, while any defective animals must not be registered, but must be destroyed or used only in breeding common cattle. This plan avoids public ownership, and, within the limits prescribed, allows each breeder to conduct his own business. It meets the requirements of the slogan that "Individualism in cooperation is better than service in corporations." It avoids any necessity of creating large corporations to secure both the large numbers of animals and the long-continued effort under scientific direction or of public ownership of pure-bred stock, in order that the animals may be improved.

Double-Decked Cattle as Dollar-Makers

Under this circuit plan the public receives returns for its expenditure by having a group of intelligent breeders work permanently under a scientific plan in the segregation of the best blood of the breed into a more valuable breed of animals. In twenty years Minnesota may have a very profitable market in other States and abroad for high-priced "double-decked" cattle which combine milk and beef. Too long have we paid tribute to the enterprising counties of the British Islands for pure-bred livestock. Let Colorado and Vermont and Minnesota and other States enter upon circuit breeding, that these State names may take the place of imported names in the pedigree of animals, thus following out the proposition of Secretary James Wilson, that "America should produce all those needed agricultural commodities to which her soil and climate are adapted." State animal-breeding establishments, as well as State plant-breeding establishments, promise to be most profitable to the whole people.

The addition of ten per cent., or two hundred million dollars, to the two billion dollars of our domestic animal product will not be very expensive, will necessitate but a comparatively small outlay, and is not at all impracticable. A long period of time—years, covering numerous generations—and coöperative organization are the essentials of a successful plan for securing this result.

Not the least of the interests connected with breeding is the American Breeders' Association. Now in its fifth year, this lusty infant has successfully brought into conference and coöperation the plant breeders and the animal breeders, and with them the teachers of breeding and the scientists devoted to researches concerning heredity. Even those who have begun a study of heredity in the races of men have been here organized into a committee and have submitted a preliminary report of their first studies. All recognize that comparatively little can be done in breeding the human family as compared with the radical work of plant or animal improvement.

Nearly fifty committees of the American Breeders' Association are assembling facts and formulating plans to aid breeders by bringing about coöperation between departments of agriculture and experiment stations, also coöperation of these institutions with other breeders and growers of pure-bred plants and animals. The goal is more than five hundred million dollars annually, or ten billion dollars every twenty years; it is also happier farmers, cheaper food and cheaper clothing for all classes.

The Debt We Owe the Soil

The United States produces practically seven billion five hundred million dollars' worth of plant and animal products per annum. We can give credit for at least one billion of this sum to agricultural science. Without increasing our cultural acreage, yet one-third more will thus be added to the seven billion five hundred million dollars of present products, making a round ten billion dollars' worth of farm products annually; and increasing the acreage will increase the product to yet other billions. The important fact is that there is from these improvements a large net increase in the value of products per acre and per worker; both a gross increase and an increase in net profits. The tens of millions spent annually by governments and States, and the aggregated hundreds of millions this and other countries are getting ready to spend, in building up the science and the practice of agriculture and in creating better types of plants and of animals, are effecting immense improvements in production. The governments of the earth have come to deem expenditures for research and technical education in the productive industries as necessary as are expenditures for an army or a navy. By both selective and creative breeding, in part under public patronage, increases will be made in the value of our plant and animal production equal to our military, naval and educational expenditures.

The objects and possibilities are so large that any plans now made for approaching the solution of the general problem of breeding which are not comprehensive will seem puerile a generation hence. The subject of genetics, or the science and the art of breeding, is one for statesmen as well as for technicians, creative artists and practical men of affairs. The signs of the times indicate that the forces are gathering in America to lead the world in this great work.

Present
"Nufangl"
Trousers

Well dressed men are not only wearing "Nufangl" Trousers more than ever, but are recommending them to their friends because of perfect *fit*, superior tailoring, up-to-dateness of cut and fabric quality.

"Nufangl" Trousers are the trousers of the future—*no straps, no buckles.* Vents at the side seams, with two snap clasps each, allow six variations of waist measure (three on a side, close, medium and open) so that "Nufangl" Trousers fit snugly yet comfortably and stay up without aid of belt or suspenders, though either may be worn.

Leading clothiers have "Nufangl" Trousers in all seasonable weights and fabrics at prices from $4 to $9.

If not at yours, we will refer you to our agent in your town, or supply direct by EXPRESS PREPAID. Only waist and length measurements necessary. Write for free samples of "Nufangl" fabrics. Address

PRESENT & COMPANY, 592 Broadway, N. Y. City

A Real Havana Cigar for Four Cents

Some "Havana Cigars" are Key West Havana, others are Havana Seed, still others are Havana only in imagination. My Regno is real Havana, grown and cured on the Island of Cuba, and the wrapper is genuine imported Sumatra.

Regno Cigars are really made to order. I only make enough each day to fill my orders, thus insuring fresh goods.

The cigars are made a plain straight shape, because it is less expensive to make them so, and they smoke equally well if not better than a fancy shape. By sending the cigars to you direct, we eliminate several profits,—you know that.

If you will send me $2.00, I will send to you 50 Regno Cigars. I will prepay all transportation charges, and guarantee if they are not as represented, I will refund your money. State shade desired—light, dark or medium. The cigar is the exact size and shape of the cut in this advertisement.

My factory has been running 64 years, and I guess that means something.

I hope you will think this proposition worth while. I know you will find it so. $2.00 for 50 real Havanas.

Joseph H. Rugg, 439 W. Market St., Blairsville, Penna.

We Ship on Approval

without a cent deposit, prepay the freight and allow 10 DAYS FREE TRIAL.

IT ONLY COSTS one cent to learn our *unheard of prices* and *marvelous offers* on highest grade 1909 model bicycles.

Factory Prices *Do not buy a* bicycle or a pair of tires from *anyone at any price* until you write for our large Art Catalog and learn our *wonderful proposition* on first sample bicycle going to your town.

Rider Agents everywhere are making big money exhibiting and selling our bicycles. We Sell cheaper than any other factory.

Tires, Coaster-Brakes, single wheels, parts, repairs and sundries at *half usual prices*. Do Not Wait; *write today for our special offer.*

MEAD CYCLE CO., Dept. K-55, CHICAGO

ALLEN VOSHELL, Lutherville, Maryland

Pony Outfits for Boys

What boy has not dreamed of owning a Shetland pony rig? *Heretofore*, when wide-awake, you may not have dared to expect your pony dream to come true; but *now* any boy may cherish a lively hope of having a real swell pony outfit, if he sells

THE SATURDAY EVENING POST

A Blooded Shetland Pony

From September to December, inclusive, we are going to give a Shetland pony *each month*, with cart and harness complete, to one boy who sells the magazine. You can have one of them. Each pony, safe for a boy to drive, yet full of life and a good traveler. Both cart and harness made especially to fit your pony by the Michigan Buggy Company. The outfit is worth $150.00. Each winner can have that amount in cash if he prefers.

City Boys *vs.* Boys in Small Towns

We have arranged a way of scoring so that each boy's opportunity is balanced nicely with those of other boys. Boys in small towns have just as good a chance as boys in large cities. This was shown during the first offer, in which Allen Voshell, of Lutherville (pop. 663), Maryland, winner of the May pony outfit, and Irene Dickinson, of Hanna (pop. 172), Wyoming, were "tie" as to number of points scored with a boy in a large city (Birmingham, Ala.).

Boys! Earn a Pony Outfit *Now*

Any boy who sells the magazine may receive a Shetland pony. The offer especially favors boys starting work now. If you want a pony write at once; ask us to send you details, together with ten free copies of the next issue of the magazine. The copies will be mailed to you entirely without charge. These you can sell at five cents each and thus provide the money for the following week's supply at the wholesale price. ¶Full information will go with the magazines, including an eight-page booklet telling all about the Pony outfit, and another booklet, "Boys Who Have Push," giving clever plans of some successful boy agents. Write today.

$250.00 in Cash as extra prizes for boys who do good work next month

THE CURTIS PUBLISHING COMPANY, 836 Arch Street, Philadelphia, Pa.

Too young to say Pillsbury's Breakfast Food —but look at his mouth

What It Is

Children are satisfied with nothing else — neither are grown-ups—after they once know its dainty, distinctive taste. It is the real cream of the choicest wheat —the heart of the grain, ground into tiny, pearly white granules. It cooks up smooth, free from lumps—creamy, rich, delicious. Its double, air-tight container keeps it as fresh and clean on the grocer's shelves as when it comes from the mills. Made by the same Pillsbury that makes the flour—a guarantee of its goodness. Ask your grocer for this delicious new breakfast food. There are similar foods but none so tasty—pure—clean and fresh. Get Pillsbury's.

The Breakfast Food